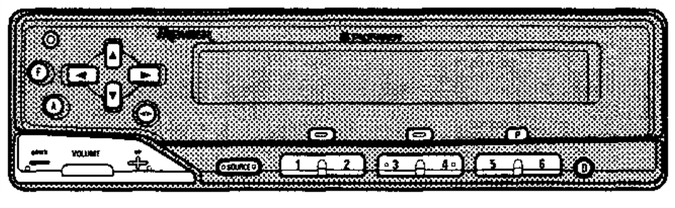
PIONEER®
The Art of Entertainment

Service Manual

KEH-P616/UC



ORDER NO.
CRT1970

MULTI-CD CONTROL HIGH POWER CASSETTE PLAYER WITH FM/AM TUNER

KEH-P616 UC
KEH-P6600 UC
KEH-P6650 ES

NOTE:

- **See the separate manual CX-631(CRT1640) for the cassette mechanism description.**
- **The cassette mechanism assy employed in this model is one of X-2L series**
- **Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.**
- **This service manual does not describe the CD test mode. For the operations in the CD test mode, refer to the CD player's Service Manual.**

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1. SAFETY INFORMATION

UC model

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should mot risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

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2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING

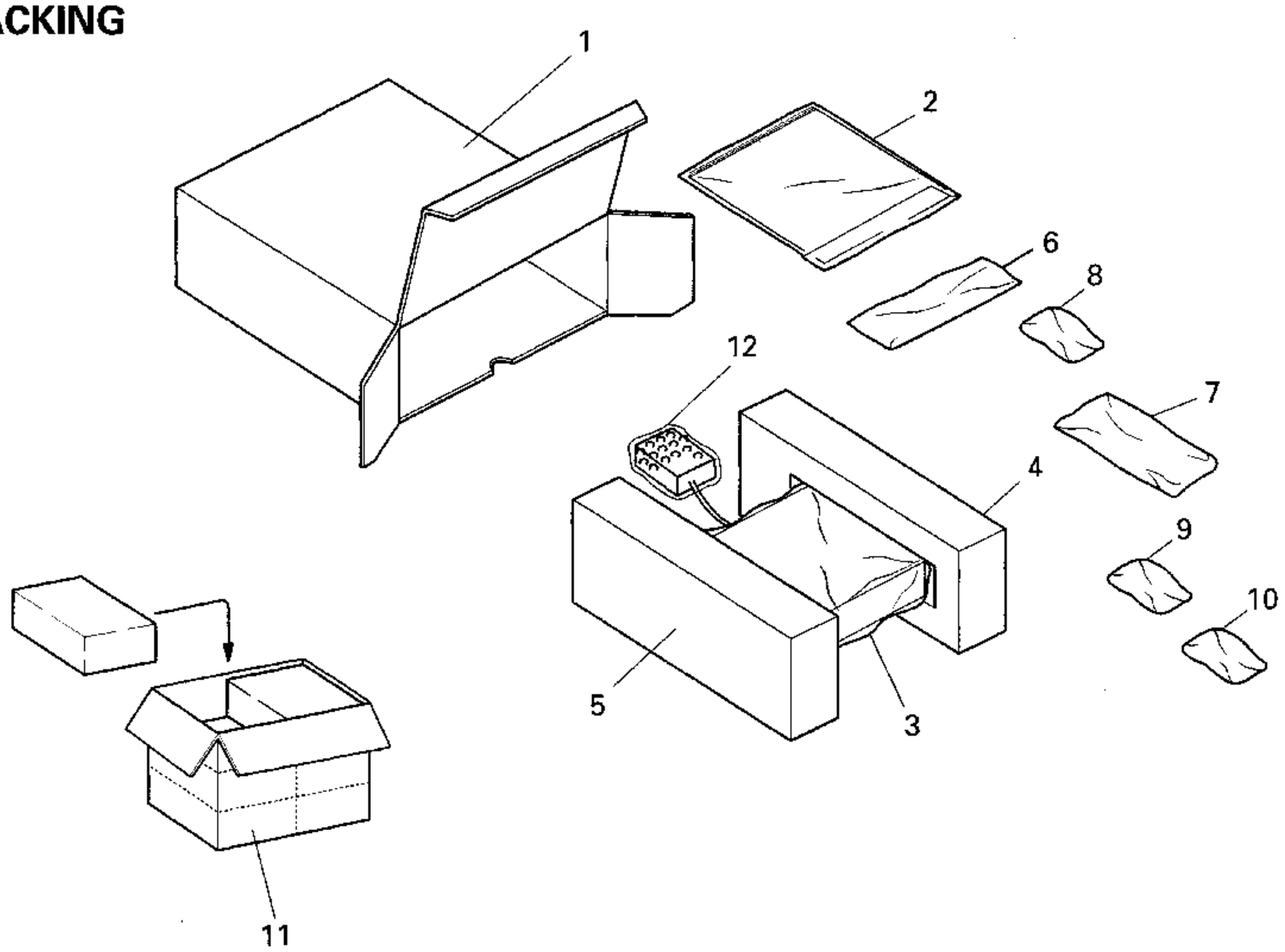

Fig. 1

NOTE:

- Parts marked by " * "are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▼ mark on the product are used for disassembly.
- **Parts List**

Mark No.	Description	Part No. KEH-P616/UC	KEH-P6600/UC	KEH-P6650/ES
	1 Carton	CHG3297	CHG3295	CHG3293
	2-1 Owner's Manual	CRD2373	CRD2371	CRD2368
	2-2 Installation Manual	CRD2374	CRD2372	CRD2370
	2-3 Owner's Manual	Not used	Not used	CRD2369
*	2-4 Warranty Card	CRY1070	Not used	Not used
*	2-5 Card	Not used	ARY1048	Not used
	2-6 Polyethylene Bag	CEG1116	CEG1116	CEG-162
	3 Polyethylene Bag	CEG1173	CEG1173	CEG1173
	4 Protector	CHP1606	CHP1606	CHP1606
	5 Protector	CHP1607	CHP1607	CHP1607
	6 Case Assy	CXA7194	CXA7194	CXA7194
	7 Cord Assy	CDE4938	CDE4938	CDE4936
	8 Accessory Assy	CEA2066	CEA2066	CEA2067
	9 Remote Control Unit	CXB1146	CXB1146	CXB1146
	10 Battery	CEX1030	CEX1030	CEX1030
	11 Contain Box	CHL3297	CHL3295	CHL3293
	12 Air Cushioned Bag	CEG1192	CEG1192	CEG1192

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● Owner's Manual, Installation Manual

Model	Part No.	Language
KEH-P616/UC	CRD2373	English, French
	CRD2374	English, French
KEH-P6600/UC	CRD2371	English, French
	CRD2372	English, French
KEH-P6650/ES	CRD2368	English, Spanish
	CRD2369	Portuguese(B), Arabic
	CRD2370	English, Spanish,Portuguese, Arabic

● Accessory Assy

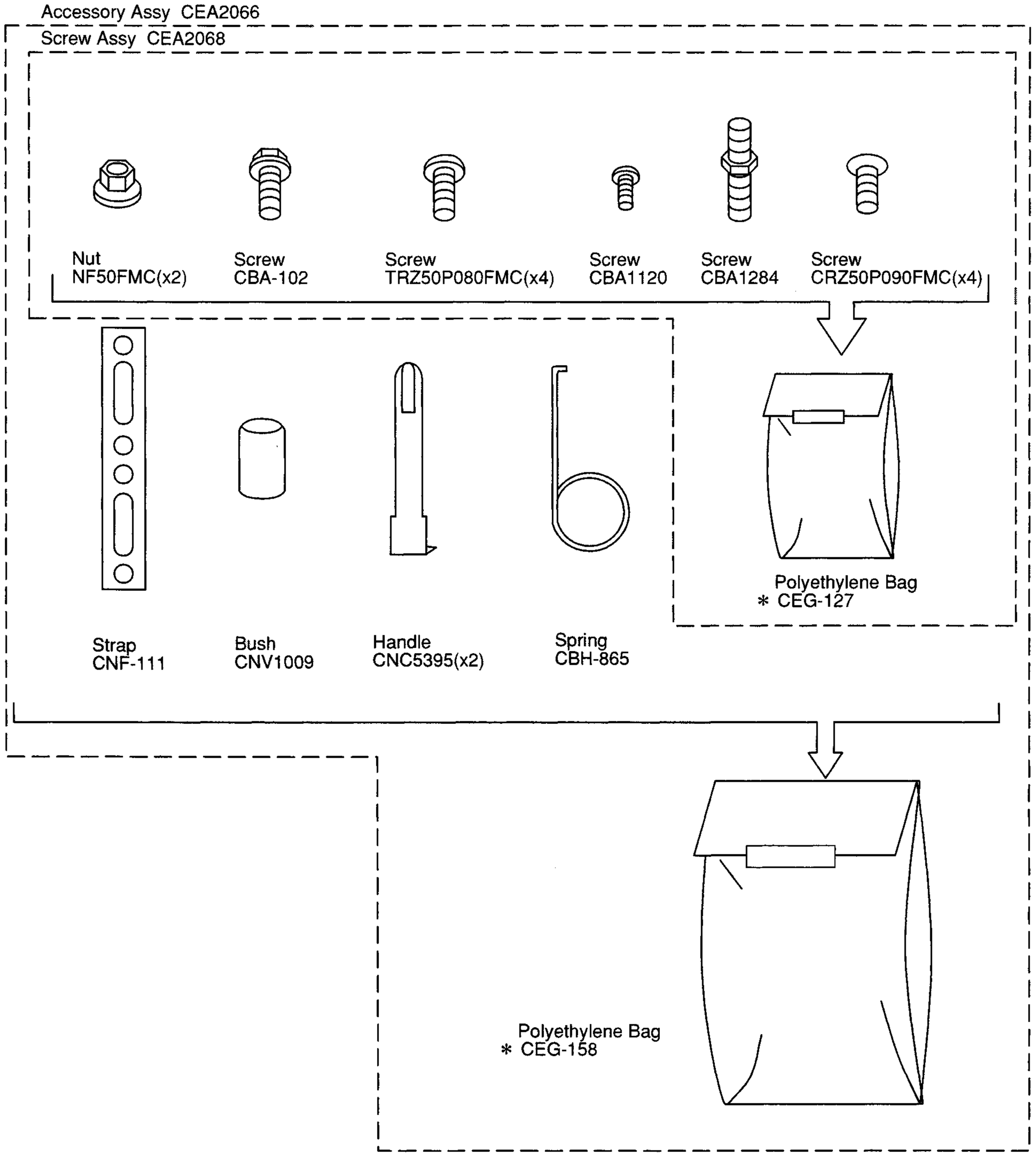

Fig. 2

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● Accessory Assy

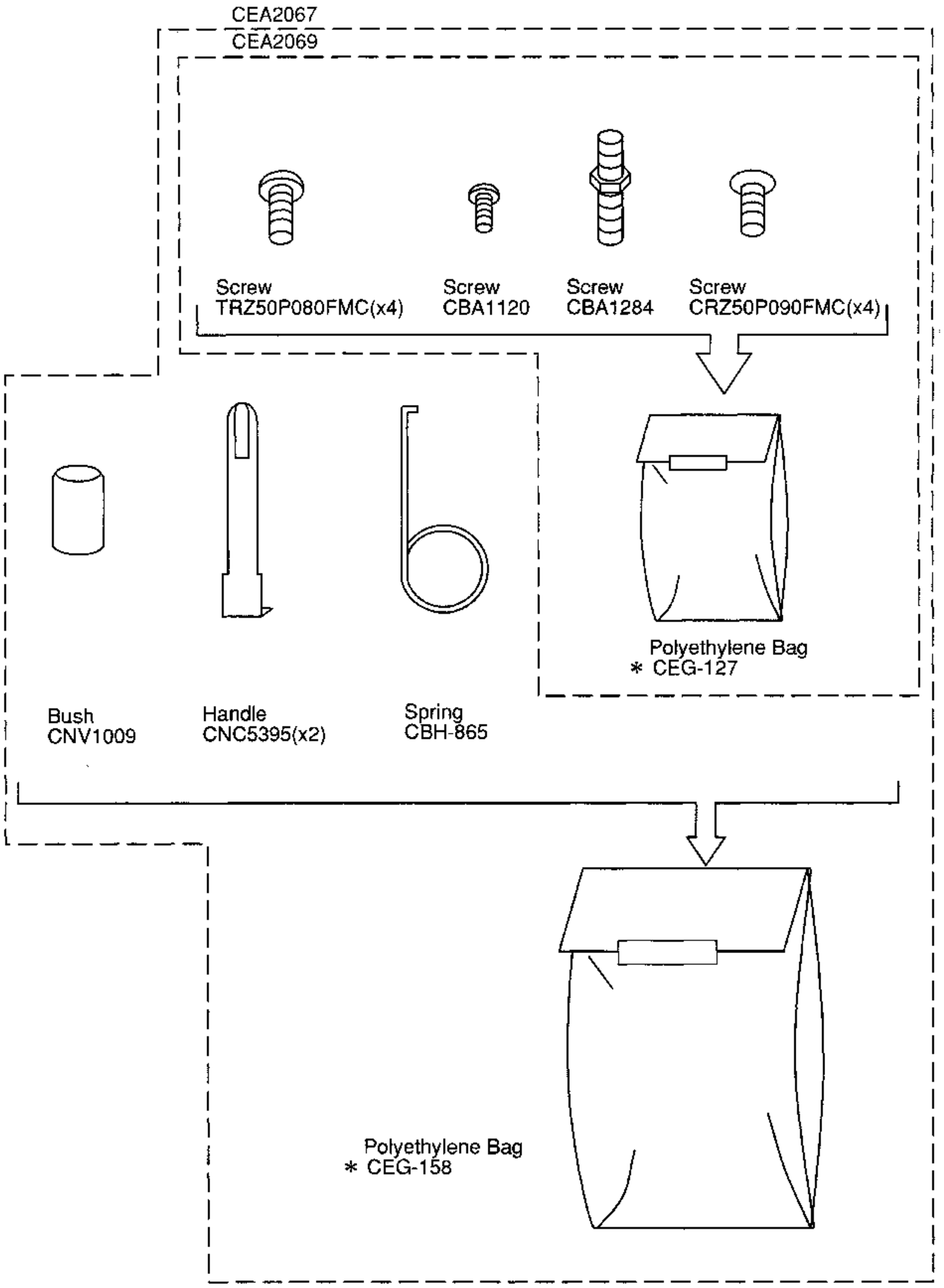

Fig. 3

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2.2 EXTERIOR

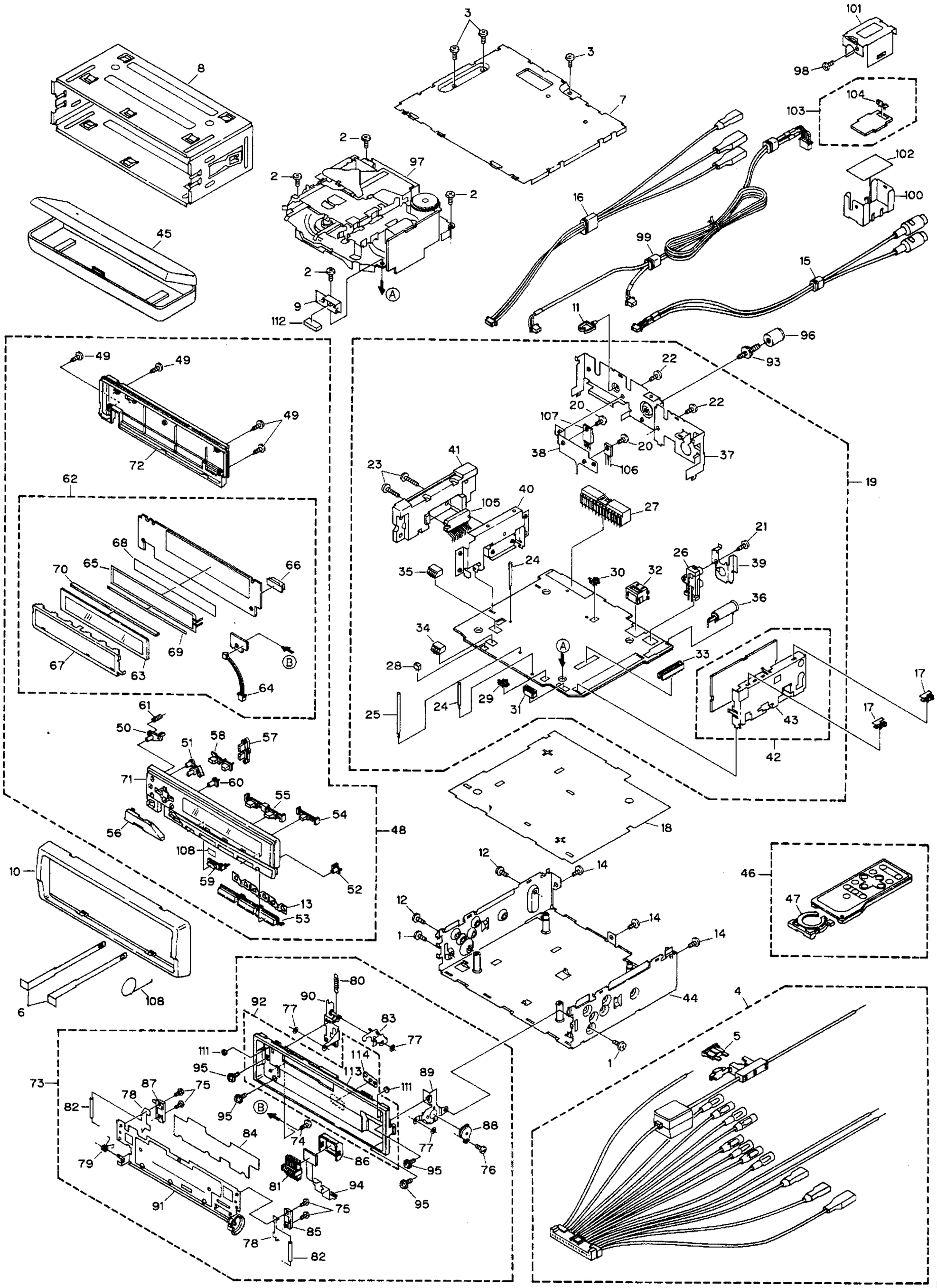

Fig. 4

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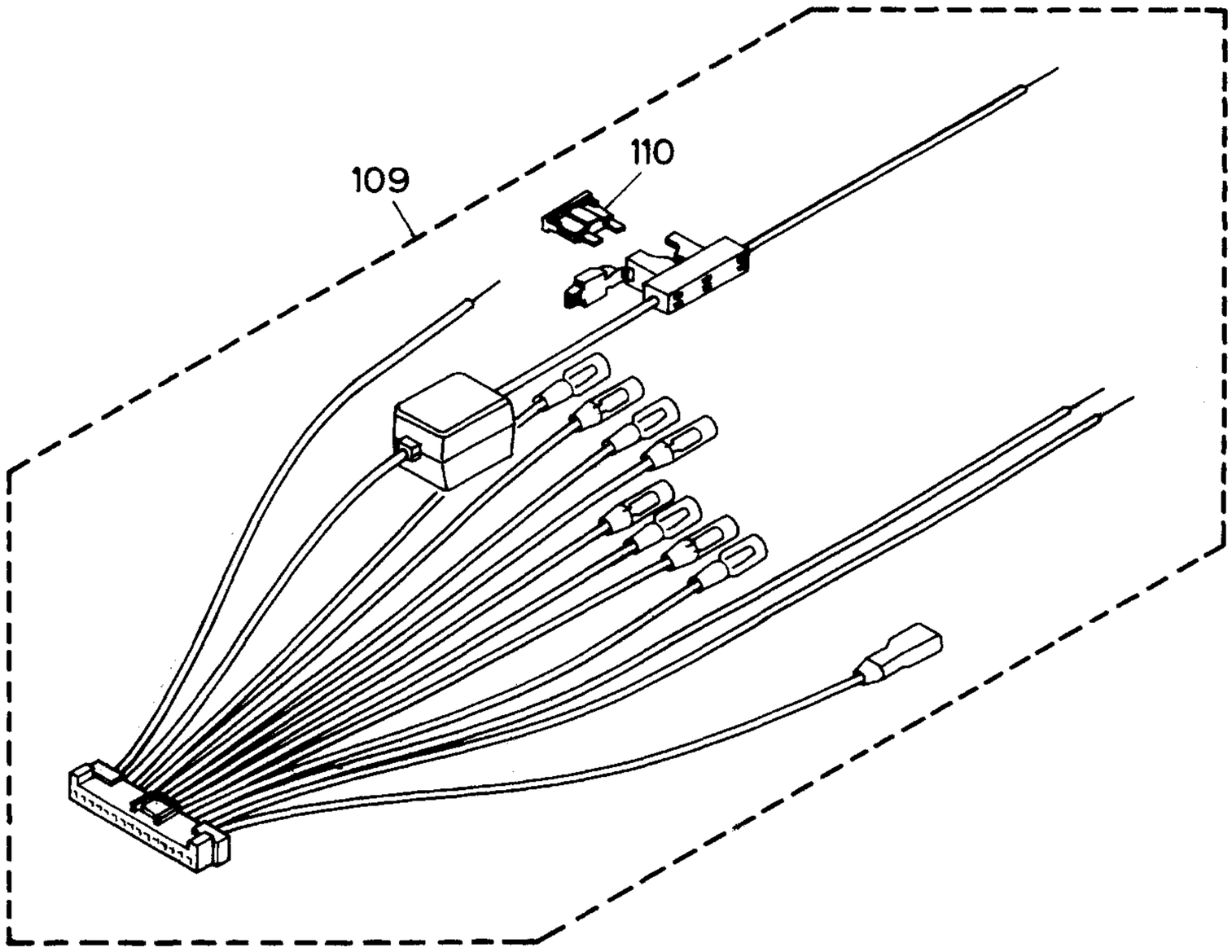

Fig. 5

● Parts List

Mark No.	Description	Part No. KEH-P616/UC	KEH-P6600/UC	KEH-P6650/ES
	1 Screw	BMZ30P040FMC	BMZ30P040FMC	BMZ30P040FMC
	2 Screw	BSZ26P050FMC	BSZ26P050FMC	BSZ26P050FMC
	3 Screw	BSZ30P050FMC	BSZ30P050FMC	BSZ30P050FMC
	4 Cord Assy	CDE4938	CDE4938	Not used
	5 Fuse(10A)	CEK1136	CEK1136	Not used
	6 Handle	CNC5395	CNC5395	CNC5395
	7 Case	CNB2224	CNB2224	CNB2224
	8 Holder	CNC6798	CNC6798	CNC6798
	9 Shield	CNC4365	CNC4365	CNC4365
	10 Panel	CNS4447	CNS4447	CNS4447
	11 Clamper	CNV1343	CNV1343	CNV1343
	12 Screw	BMZ30P080FMC	BMZ30P080FMC	BMZ30P080FMC
*	13 Spacer	CNM5524	CNM5524	CNM5524
	14 Screw	BSZ30P050FMC	BSZ30P050FMC	BSZ30P050FMC
	15 Connector	CDE5345	CDE5345	CDE5345
	16 Cord	CDE5346	Not used	Not used
	17 Holder	CNC5704	CNC5704	CNC5704
	18 Insulator	CNM5248	CNM5248	CNM5248
	19 Tuner Amp Unit	CWM5322	CWM5320	CWM5324
	20 Screw	BMZ26P060FMC	BMZ26P060FMC	BMZ26P060FMC
	21 Screw	BPZ26P060FMC	BPZ26P060FMC	BPZ26P060FMC
	22 Screw	BSZ26P050FMC	BSZ26P050FMC	BSZ26P050FMC
	23 Screw	BSZ26P140FMC	BSZ26P140FMC	BSZ26P140FMC
	24 Clamper	CEF1005	CEF1005	CEF1005
	25 Clamper	CEF1009	CEF1009	CEF1009

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Mark No.	Description	Part No. KEH-P616/UC	KEH-P6600/UC	KEH-P6650/ES
26	Pin Jack(CN351)	CKB1028	CKB1028	CKB1028
27	Plug(CN601)	CKM1231	CKM1231	CKM1231
28	Plug(CN644)	CKS-783	CKS-783	CKS-783
29	Plug(CN641)	CKS1236	CKS1236	CKS1236
30	Plug(CN642)	CKS1236	CKS1236	CKS1236
31	Connector(CN643)	CKS1499	CKS1499	CKS1499
32	Connector(CN281)	CKS3408	CKS3408	CKS3408
33	Connector(CN671)	CKS3568	CKS3568	CKS3568
34	Connector(CN801)	CKS3597	Not used	Not used
35	Connector(CN352)	CKS3598	CKS3598	CKS3598
36	Antenna Jack(CN402)	CKX1056	CKX1056	CKX1056
37	Panel	CNB2166	CNB2167	CNB2167
38	Holder	CNC6420	CNC6420	CNC6420
39	Holder	CNC6531	CNC6531	CNC6531
40	Holder	CNC6674	CNC6674	CNC6674
41	Heat Sink	CNR1426	CNR1426	CNR1426
42	FM/AM Tuner Unit	CWE1417	CWE1417	CWE1485
43	Holder	CNC6555	CNC6555	CNC6555
44	Chassis Unit	CXB1211	CXB1211	CXB1211
45	Case Assy	CXA7194	CXA7194	CXA7194
46	Remote Control Unit	CXB1146	CXB1146	CXB1146
47	Cover	CNS4139	CNS4139	CNS4139
48	Detach Grille Assy	CXB1447	CXB1448	CXB1450
49	Screw	BPZ20P080FZK	BPZ20P080FZK	BPZ20P080FZK
50	Button(OPEN)	CAC4971	CAC4971	CAC4971
51	Button(F,A)	CAC4972	CAC4972	CAC4972
52	Button(D)	CAC5341	CAC5341	CAC5341
53	Button(1-6)	CAC5083	CAC5083	CAC5083
54	Button(PGM)	CAC5084	CAC5084	CAC5084
55	Button(LOUD,CLOCK)	CAC5085	CAC5085	CAC5085
56	Button(Vol+,Vol-)	CAC5086	CAC5086	CAC5086
57	Button(▲,▼)	CAC5087	CAC5087	CAC5087
58	Button(◄,►)	CAC5088	CAC5088	CAC5088
59	Button(SOURCE)	CAC5089	CAC5089	CAC5089
60	Button(◁▷)	CAC5222	CAC5222	CAC5222
61	Spring	CBH1844	CBH1844	CBH1844
62	Keyboard Unit	CWM5561	CWM5448	CWM5448
63	LCD(LCD901)	CAW1420	CAW1420	CAW1420
64	Cord	CDE4387	CDE4387	CDE4387
65	EL(CN902)	CEL1502	CEL1502	CEL1502
66	Connector(CN901)	CKS2733	CKS2733	CKS2733
67	Holder	CNC7024	CNC7024	CNC7024
68	Tape	CNM5317	CNM5317	CNM5317
69	Spacer	CNM5380	CNM5380	CNM5380
70	Connector	CNV4875	CNV4875	CNV4875
71	Grille Unit	CXB1195	CXB1194	CXB1193
72	Cover Unit	CXB1201	CXB1201	CXB1201
73	Panel Assy	CXB1456	CXB1456	CXB1453
74	Screw	BPZ20P060FMC	BPZ20P060FMC	BPZ20P060FMC
75	Screw	CBA1082	CBA1082	CBA1082

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Mark No.	Description	Part No. KEH-P616/UC	KEH-P6600/UC	KEH-P6650/ES
76	Screw	CBA1176	CBA1176	CBA1176
77	Washer	CBF1001	CBF1001	CBF1001
78	Spring	CBH2063	CBH2063	CBH2063
79	Spring	CBH1660	CBH1660	CBH1660
80	Spring	CBH1696	CBH1696	CBH1696
81	Connector	CKS2780	CKS2780	CKS2780
82	Roller	CLA3247	CLA3247	CLA3247
83	Arm	CNC7130	CNC7130	CNC7130
84	Sheet	CNM5142	CNM5142	CNM5142
85	Holder	CNV2141	CNV2141	CNV2141
86	Cover	CNV3965	CNV3965	CNV3965
87	Holder	CNV4979	CNV4979	CNV4979
88	Damper Unit	CXA7159	CXA7159	CXA7159
89	Holder Unit	CXA7794	CXA7794	CXA7794
90	Holder Unit	CXA9806	CXA9806	CXA9806
91	Holder Unit	CXA9807	CXA9807	CXA9807
92	Panel Unit	CXB1206	CXB1206	Not used
93	Screw	CBA1284	CBA1284	CBA1284
94	P.C.Board	CNP4720	CNP4720	CNP4720
95	Screw	IMS20P040FZK	IMS20P040FZK	IMS20P040FZK
96	Bush	CNV1009	CNV1009	CNV1009
97	Cassette Mechanism Module	EXK3660	EXK3610	CXK3610
98	Screw	BSZ26P050FMC	BSZ26P050FMC	BSZ26P050FMC
99	Cord	MDE9001	MDE9001	MDE9001
100	Holder	MNC9001	MNC9001	MNC9001
101	Holder	MNC9002	MNC9002	MNC9002
102	Insulator	MNM9001	MNM9001	MNM9001
103	Inverter Unit	MWM9011	MWM9011	MWM9011
104	Plug(CN101)	CKS1224	CKS1224	CKS1224
105	IC(IC551)	TDA7384A	TDA7384A	TDA7384A
106	Transistor(Q641)	2SD1189	2SD1189	2SD1189
107	Transistor(Q624)	2SD2395	2SD2395	2SD2395
* 108	Spacer	CNM5532	CNM5532	CNM5532
109	Cord Assy	Not used	Not used	CDE4936
110	Fuse(10A)	Not used	Not used	CEK1136
* 111	Cushion	CNM5486	CNM5486	CNM5486
112	Spacer	CNM5488	CNM5488	CNM5488
113	Panel	CNS4432	CNS4432	CNS4432
* 114	Clear Plastic Plate	CNV4479	CNV4479	Not used

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2.3 CASSETTE MECHANISM MODULE

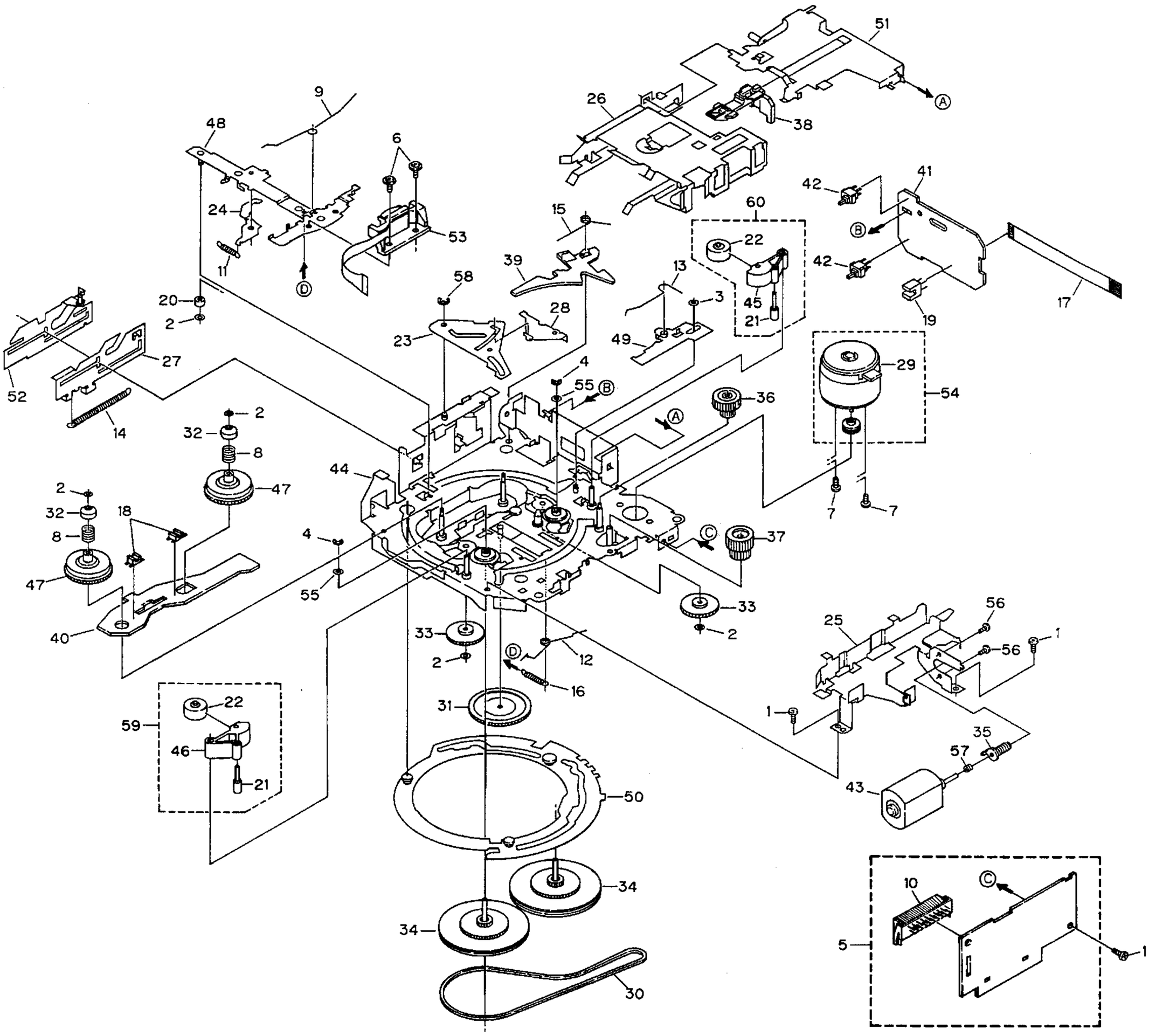

Fig. 6

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● Parts List

Mark No.	Description	Part No.
1	Screw	BSZ20P040FMC
2	Washer	CBF1037
3	Washer	CBF1038
4	Washer	CBG1003
5	Deck Unit(P616/UC)	EWM1011
	Deck Unit (P6600/UC,P6650/ES)	EWM1010
6	Screw	EBA1028
7	Screw	EBA1037
8	Spring	EBH1531
9	Spring	EBH1575
10	Plug(CN251)	CKS3540
11	Spring	EBH1515
12	Spring	EBH1587
13	Spring	EBH1517
14	Spring	EBH1518
15	Spring	EBH1519
16	Spring	EBH1537
17	Cord	EDD1020
18	Photo-interrupter(EGN2,3)	EGN1006
19	Photo-interrupter(EGN1)	EGN1005
20	Roller	ENR1031
21	Shaft	ELA1373
22	Pinch Roller	ENV1501
23	Arm	ENC1396
24	Arm	ENC1397
25	Guide	ENC1481
26	Holder	ENC1417
27	Lever	ENC1448
28	Arm	ENC1401

Mark No.	Description	Part No.
29	Motor	EXM1028
30	Belt	ENT1027
31	Gear	ENV1347
32	Collar	ENV1508
33	Gear	ENV1350
34	Flywheel	ENV1516
35	Worm Gear	ENV1439
36	Worm Wheel	ENV1440
37	Gear	ENR1028
38	Lever	ENV1442
39	Arm	ENV1445
40	P.C.Board	ENX1037
41	P.C.Board	ENX1042
42	Switch(S1,S2)	ESG1004
43	Motor Unit(M2)	EXA1485
44	Chassis Unit	EXA1455
45	Pinch Holder	ENV1485
46	Pinch Holder	ENV1486
47	Reel Unit	EXA1456
48	Head Unit	EXA1457
49	Lever Unit	EXA1438
50	Gear Unit	EXA1436
51	Frame Unit	EXA1458
52	Lever Unit	EXA1439
53	Head Assy(HD1) (P616/UC)	EXA1508
	Head Assy(HD1) (P6600/UC,P6650/ES)	EXA1506
54	Motor Unit(M1)	EXA1491
55	Washer	HBF-179
56	Screw	BMZ20P022FMC
57	Spring	EBH1545
58	Washer	YE20FUC
59	Pinch Holder Unit	EXA1501
60	Pinch Holder Unit	EXA1500

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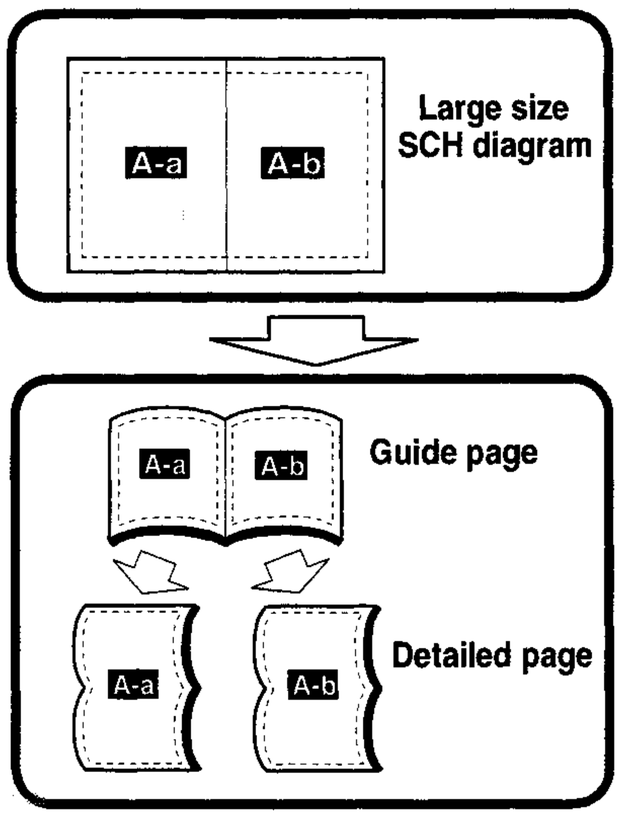
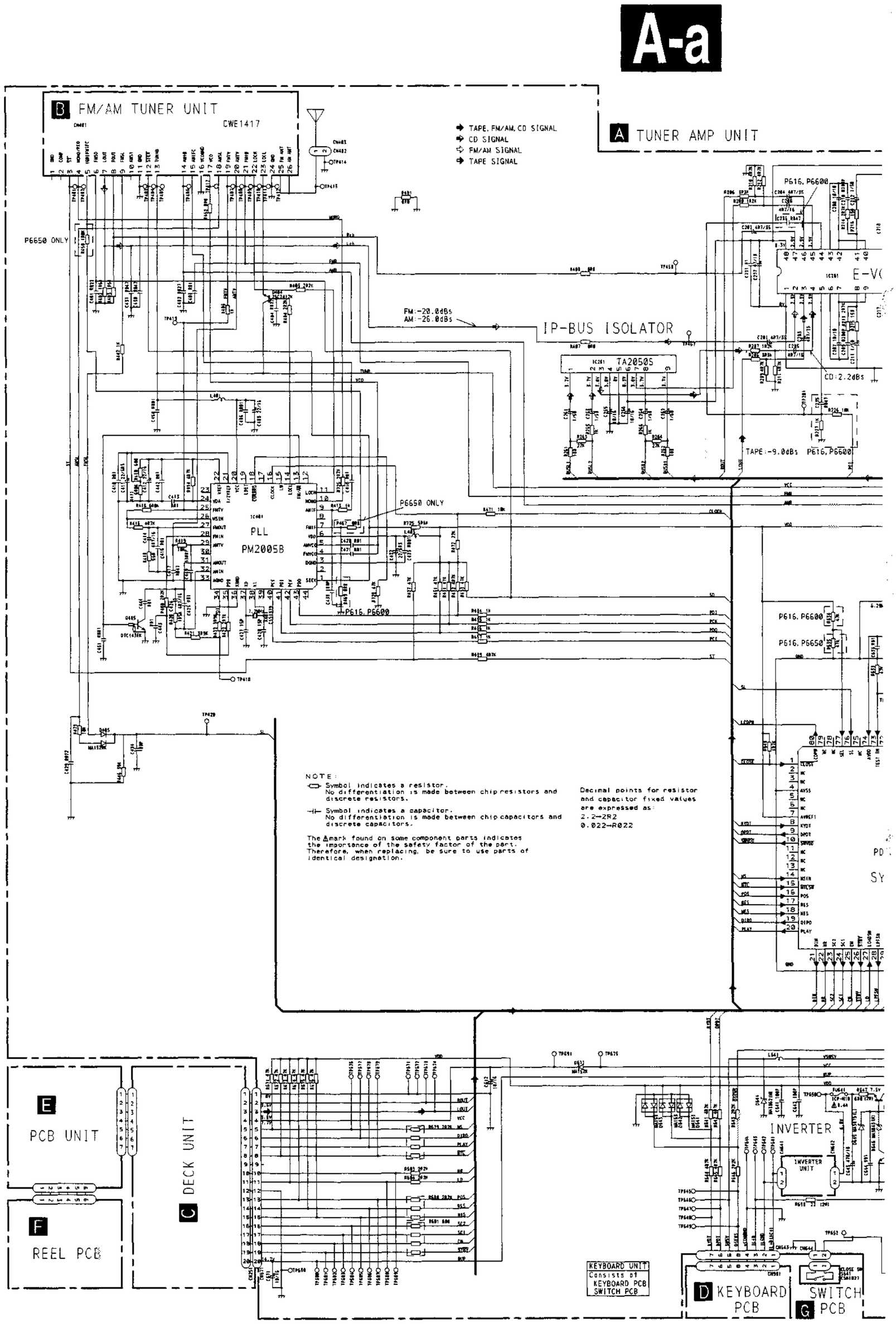
3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".





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A-b

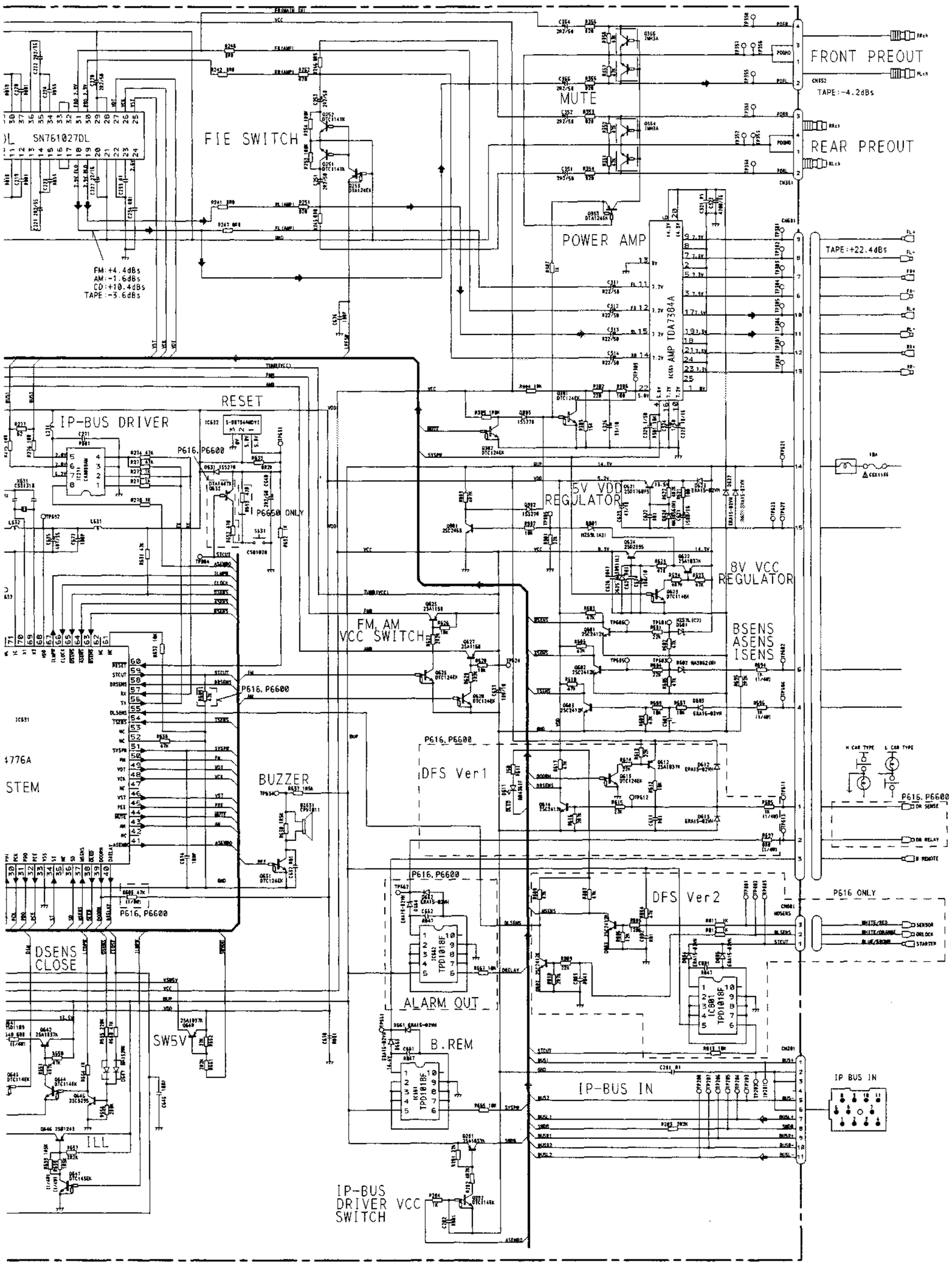

Fig. 7

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A-b

A-a

A TUNER AMP UNIT

TAPE, FM/AM, CD SIGNAL
CD SIGNAL
FM/AM SIGNAL
TAPE SIGNAL

B FM/AM TUNER UNIT CWE1417

CN481

26 AM ANT
25 FM ANT
24 GND
23 LOCL
22 LOCH
21 FM+B
20 AMTV
19 FMTV
18 AMSL
17 VCO
16 VCOGND
15 AMIFC
14 AM+B
13 TUN+B
12 SEEK
11 GND
10 AMST
9 FMSL
8 ROUT
7 LOUT
6 FMSD
5 (GD)FMIFC
4 MONO/REG
3 ST
2 COMP
1 GND

CN403 CN402 TP414 TP413

IC201 E-VOL

P616, P6600

CD: 2.2dBs

TAPE: -9.0dBs P616, P6600

TP201

IC261 TA2050S

IP-BUS ISOLATOR

FM: -20.0dBs
AM: -26.0dBs

P6650 ONLY

IC401 PLL PM2005B

P616, P6600

P616, P6650

VCC FMB AMB VDD GND

BUS1 BUSR1 BUSR2 BUSL2 BUSL1

CLOCK SD PDI PCK PDO PCE ST SL

TUNB VCO Rch Lch MONO FMB AMB FMSL AMSL ST

P6650 ONLY

TP428

A-a

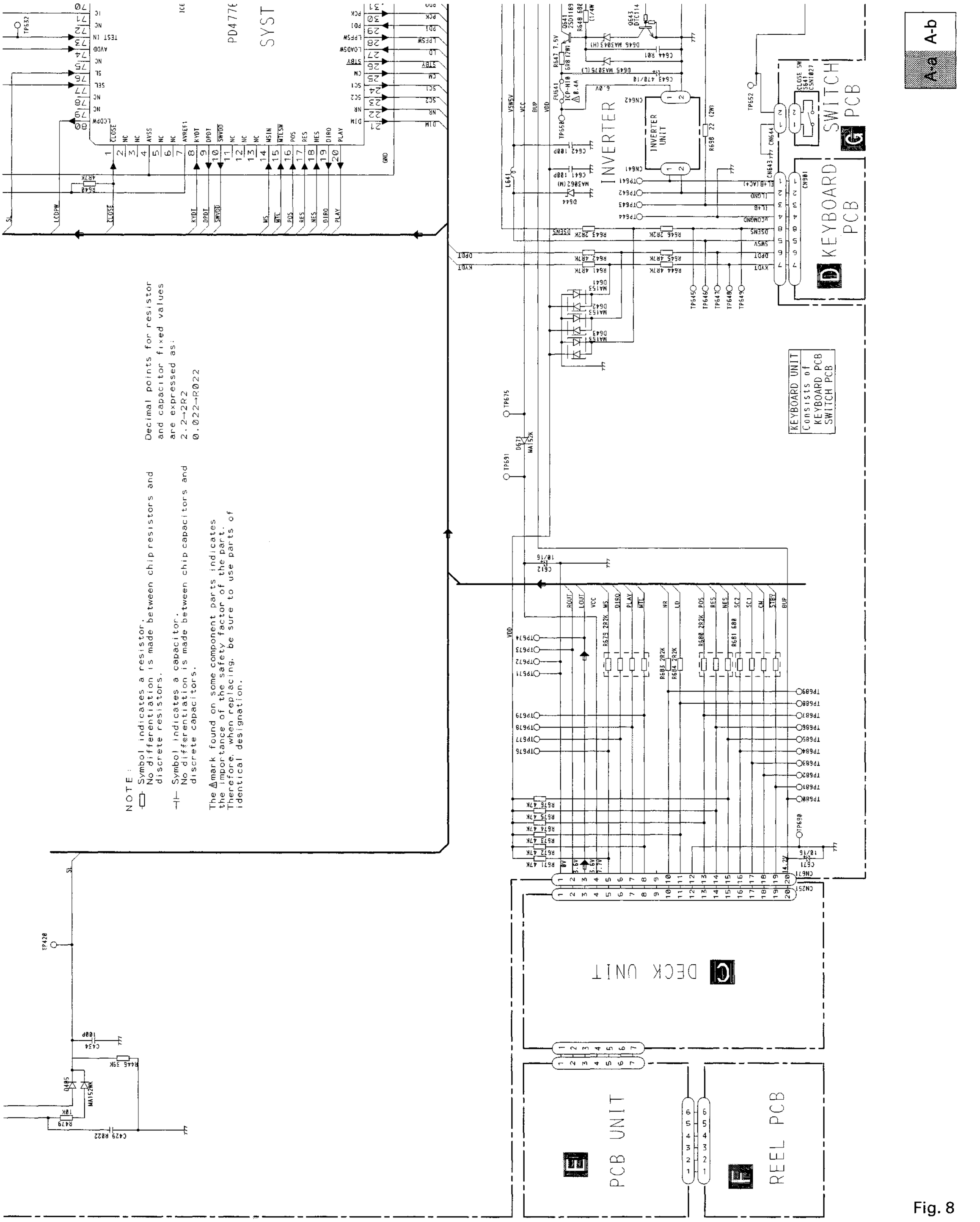
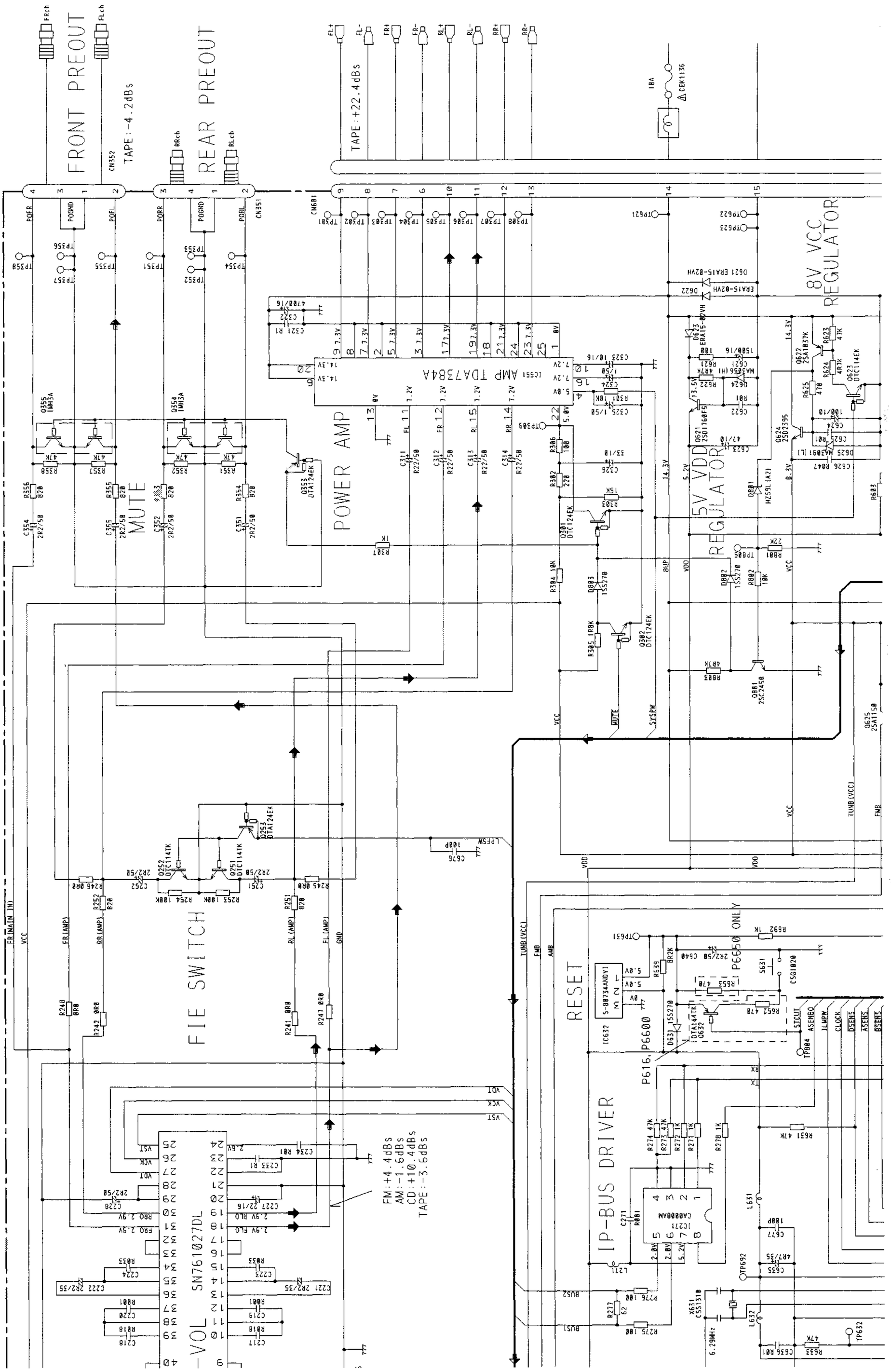

A-b
A-a
NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The △mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022
INVERTER
INVERTER UNIT
CN642
CN641
CN644
CN643
CN901
CLOSE SW
SWITCH PCB
KEYBOARD PCB
KEYBOARD UNIT
Consists of
KEYBOARD PCB
SWITCH PCB
DECK UNIT
PCB UNIT
REEL PCB
CN671
CN251
TP632
TP652
TP675
TP691
TP420
TP658
TP645
TP646
TP647
TP648
TP649
TP641
TP642
TP643
TP644
TP671
TP672
TP673
TP674
TP676
TP677
TP678
TP679
TP681
TP682
TP683
TP684
TP685
TP686
TP687
TP688
TP689
TP690
Q641 2SD1189
Q643 DTC114
Q405
D646 MA3043(H)
D645 MA3075(L)
D644
D642
D643
D641
D671 MA152K
MA153
MA152WK
FU641 ICP-N10 8.0A
6.0V
L641
R647 7.5V
R640 680 (1/4W)
R644 R01
C643 470/10
C642 100P
C641 100P
C644
C612 10/16
C621 10/16
C634 100P
C429 R022
R698 22 (2W)
R643 2R2K
R646 2R2K
R645 4R7K
R644 4R7K
R642 4R7K
R641 4R7K
R640 47K
R671 47K
R672 47K
R673 47K
R674 47K
R675 47K
R676 47K
R679 2R2K
R683 2R2K
R684 2R2K
R680 2R2K
R681 680
R479 18K
R446 39K
VSWSV
VCC
BUP
VDD
DSENS
SWSV
DPDT
KYDT
EL+B(AC+)
LGND
L+B
μCOMGND
RQUT
LOUT
MS
DIRO
PLAY
WTE
NR
LD
POS
RES
NES
SC2
SC1
CM
STBY
SL
LCDPW
CLOSE
KYDT
DPDT
SWVDD
WTE
POS
RES
NES
DIRO
PLAY
GND
TEST IN
AVDD
SEL
LOADSW
LPFSW
PDO
PCK
PDI
DIM
NR
SC2
SC1
CM
STBY
LD
BUP
PD4776
SYST

Fig. 8

A-a A-b



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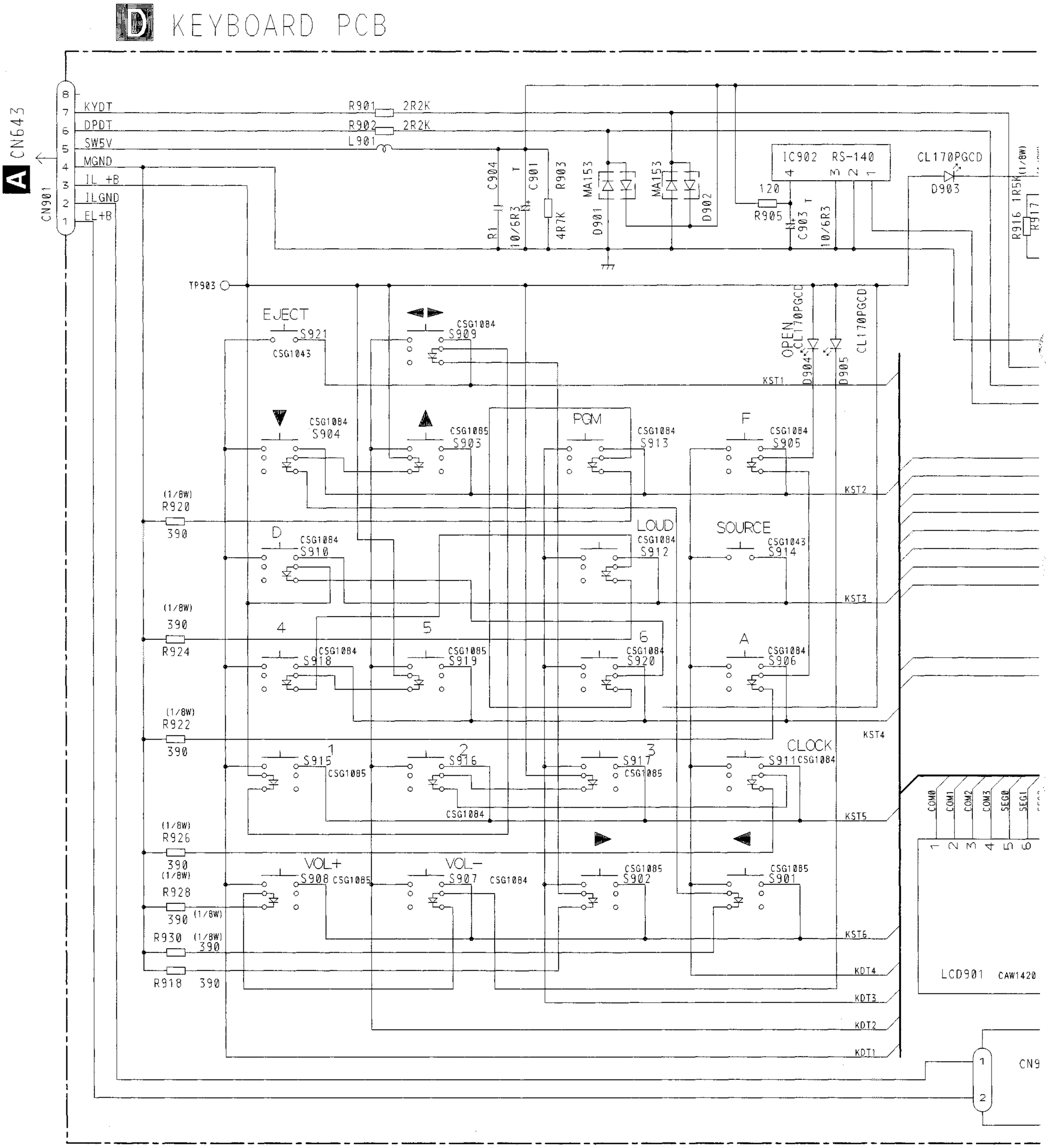
A-a A-b

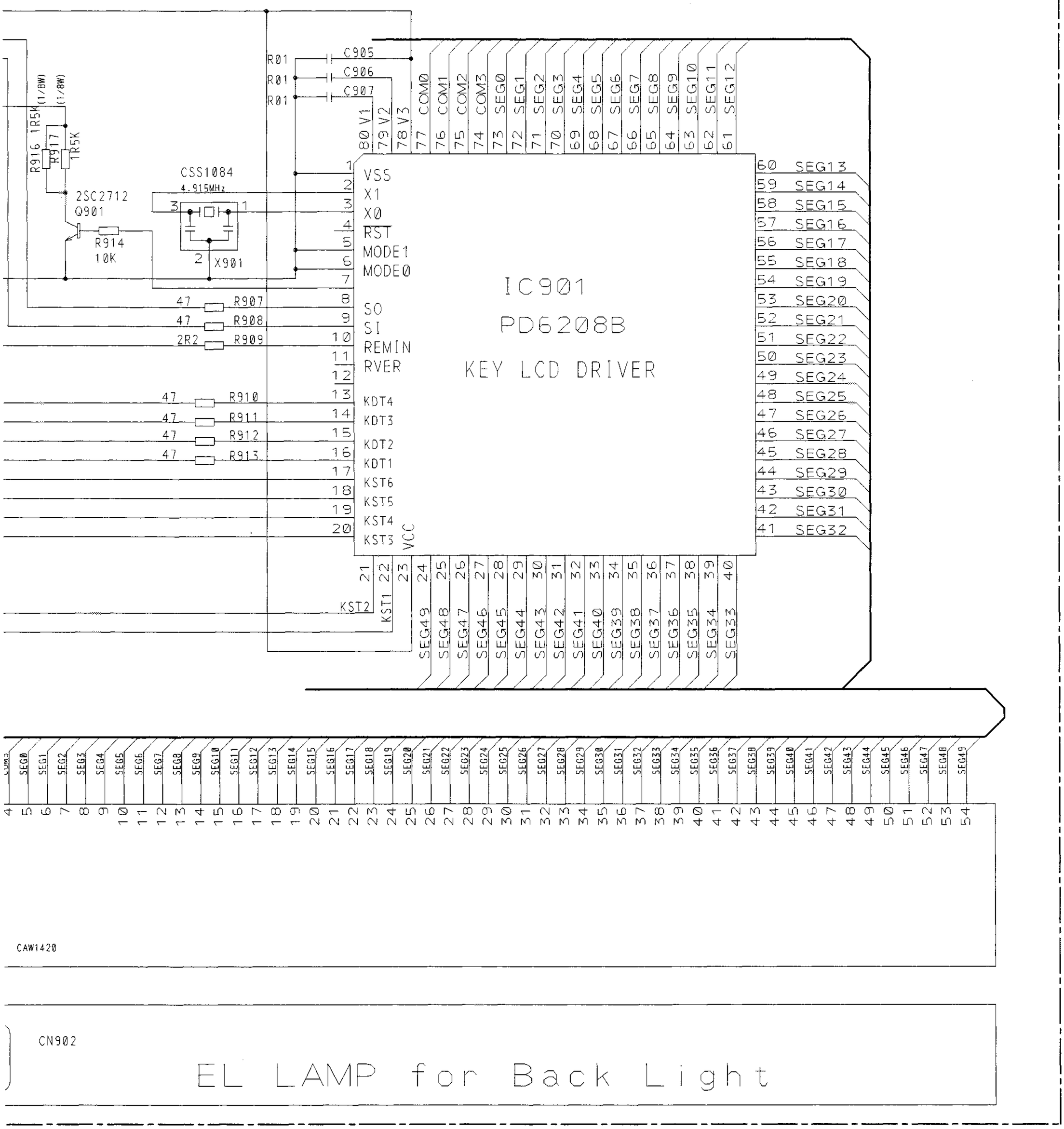
Fig. 9

ClibPDF - www.fastio.com

3.2 KEYBOARD PCB



ClibPDF - www.fastio.com



KEYBOARD UNIT
Consists of
KEYBOARD PCB
SWITCH PCB

Fig. 10

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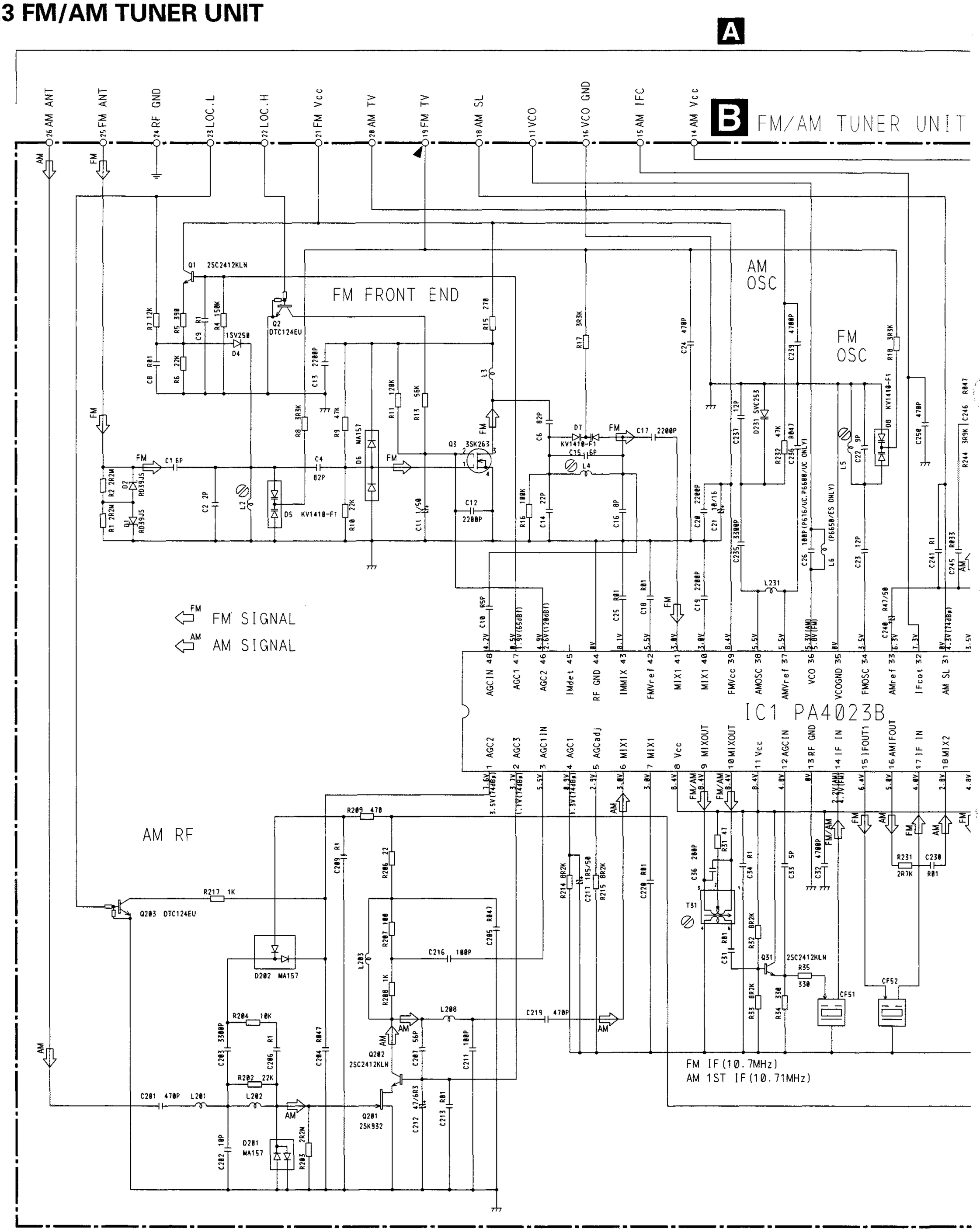
3.3 FM/AM TUNER UNIT



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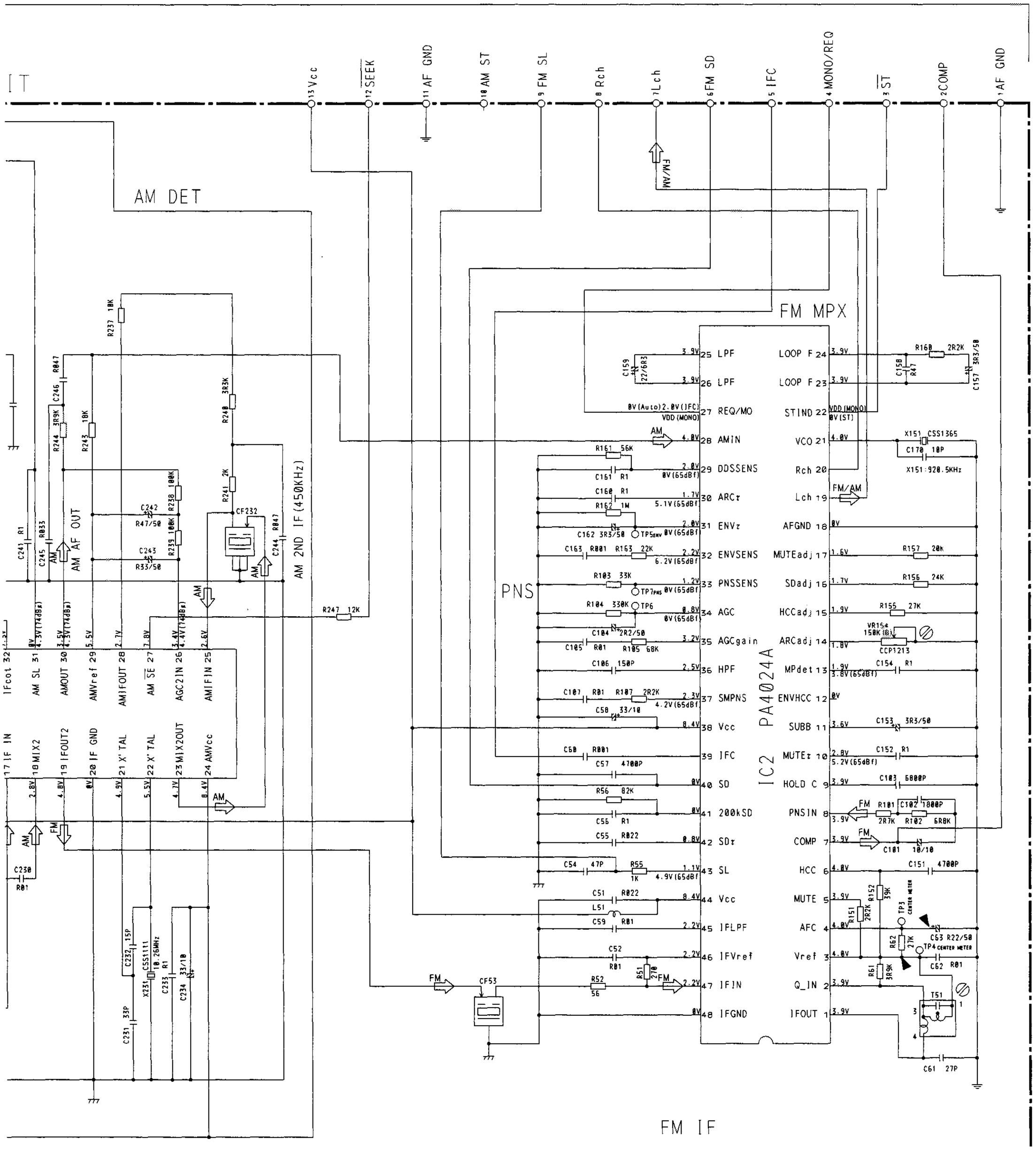
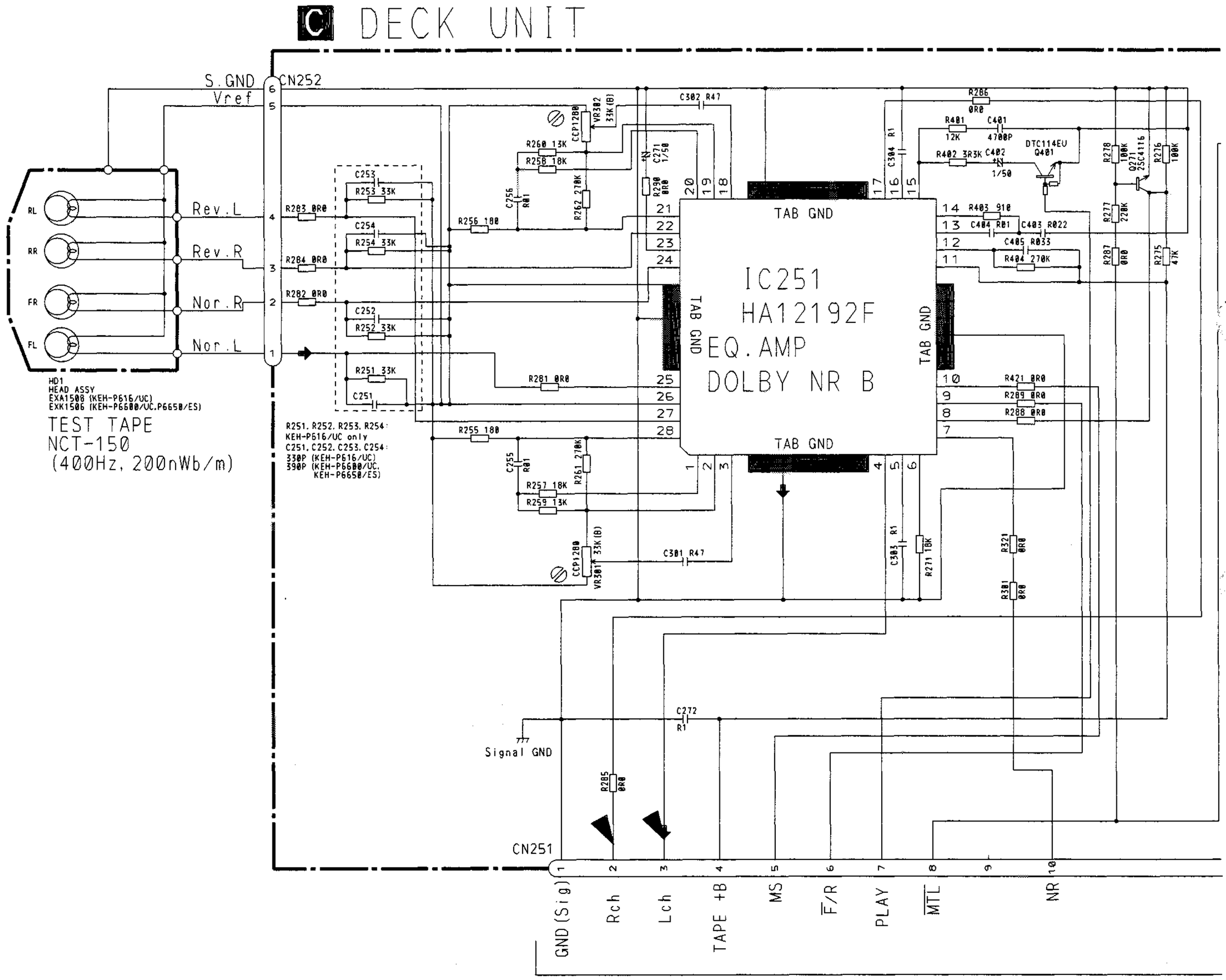
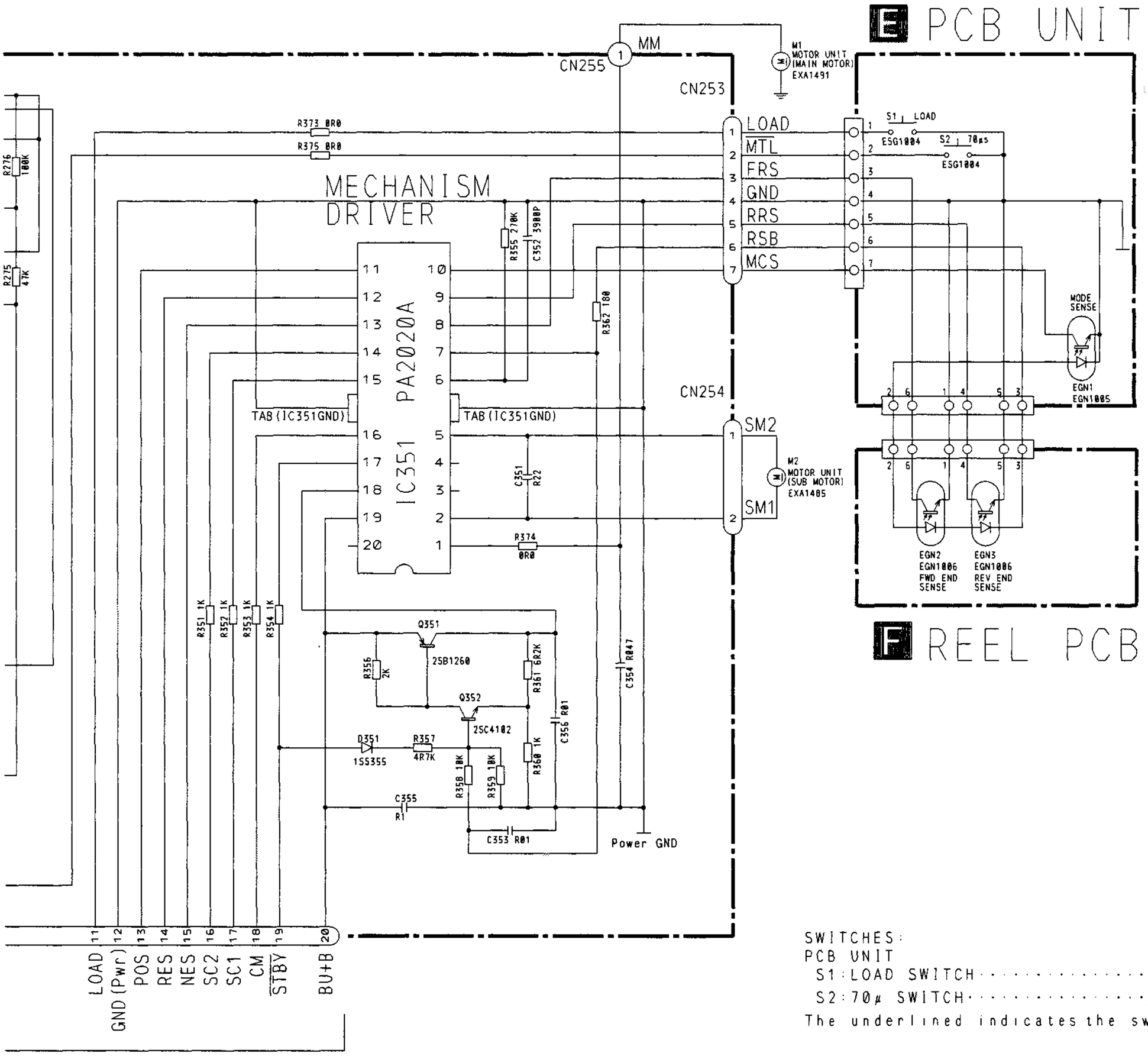

AM DET
AM AF OUT
AM 2ND IF(450KHz)
FM MPX
PNS
IC2 PA4024A
FM IF
13 Vcc
12 SEEK
11 AF GND
10 AM ST
9 FM SL
8 Rch
7 Lch
6 FM SD
5 IFC
4 MONO/REQ
3 ST
2 COMP
1 AF GND
25 LPF
26 LPF
27 REQ/MO
28 AMIN
29 DDSSENS
30 ARCr
31 ENVr
32 ENVSENS
33 PNSSENS
34 AGC
35 AGCgain
36 HPF
37 SMPNS
38 Vcc
39 IFC
40 SD
41 200kSD
42 SDr
43 SL
44 Vcc
45 IFLPF
46 IFVref
47 IFIN
48 IFGND
24 LOOP F
23 LOOP F
22 STIND
21 VCO
20 Rch
19 Lch
18 AFGND
17 MUTEadj
16 SDadj
15 HCCadj
14 ARCadj
13 MPdet
12 ENVHCC
11 SUBB
10 MUTEr
9 HOLD C
8 PNSIN
7 COMP
6 HCC
5 MUTE
4 AFC
3 Vref
2 Q_IN
1 IFOUT
32 IFcot
31 AM SL
30 AMOUT
29 AMVref
28 AMIFOUT
27 AM SE
26 AGC2IN
25 AMIFIN
17 IF IN
18 MIX2
19 IFOUT2
20 IF GND
21 X'TAL
22 X'TAL
23 MIX2OUT
24 AMVcc
X151:920.5KHz
X231 CSS1111 10.26MHz
CF232
CF53
T51
TP3 CENTER METER
TP4 CENTER METER
TP5ENV
TP6
TP7PNS

Fig. 11

3.4 CASSETTE MECHANISM MODULE





SWITCHES:

PCB UNIT

S1: LOAD SWITCH ..... EJECT-PLAY

S2: 70μ SWITCH ..... ON-OFF

The underlined indicates the switch position.

Fig. 12

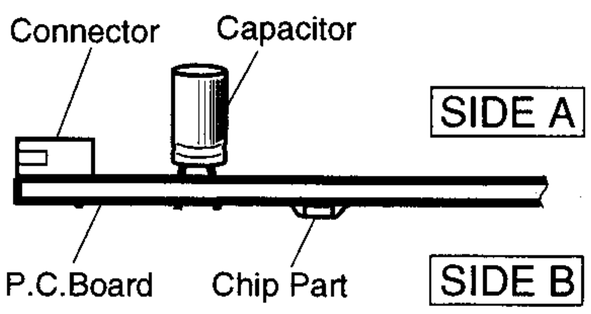
ClibPDF - www.fastio.com

4. PCB CONNECTION DIAGRAM

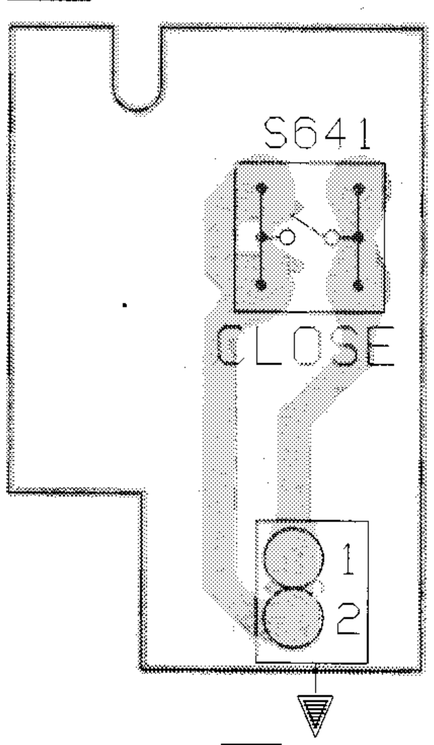
4.1 TUNER AMP UNIT, SWITCH PCB

NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



G SWITCH PCB

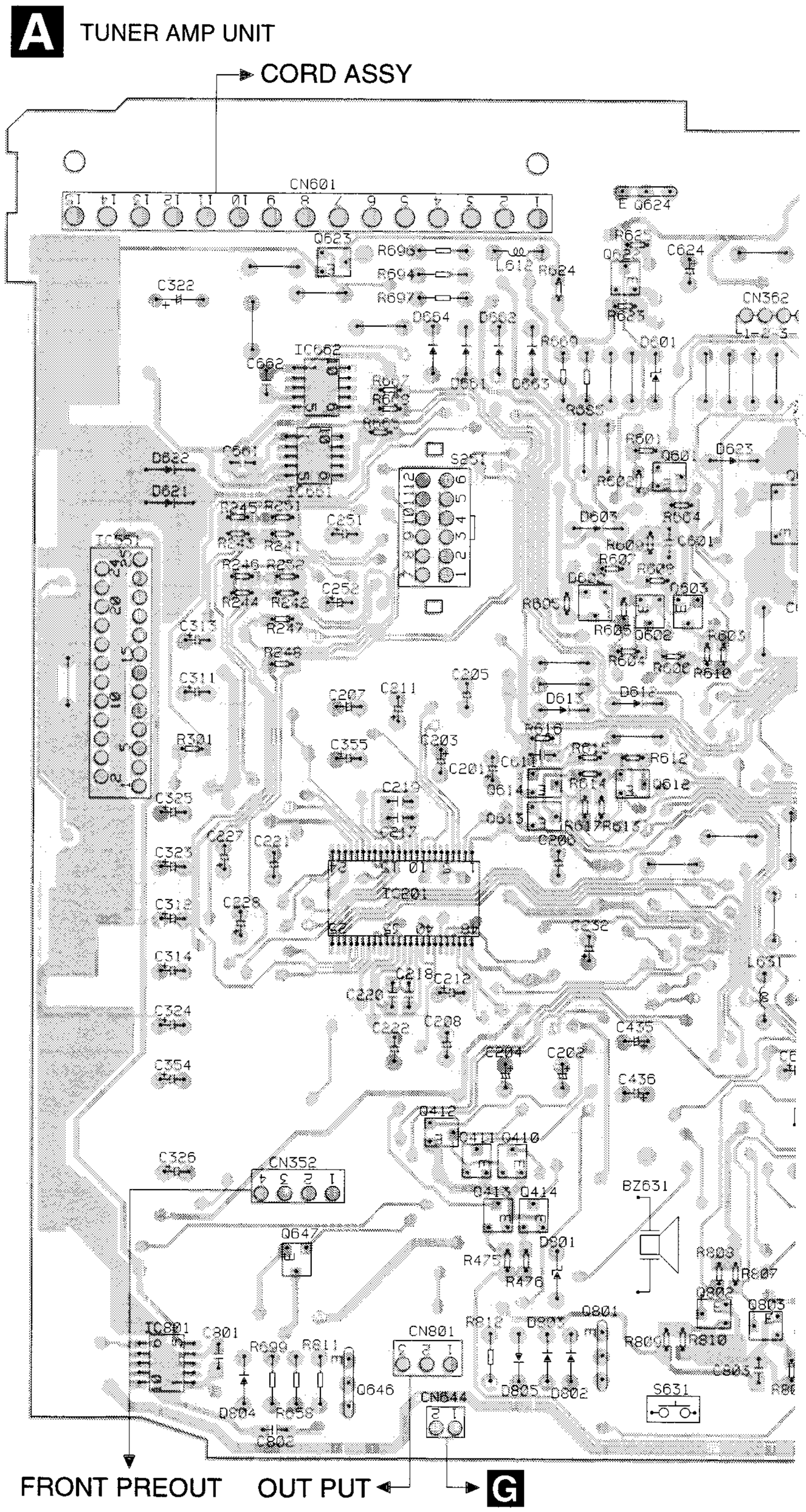


A CN644

IC, Q | ADJ

Q641
Q624
Q623 Q643
Q628
Q622 Q644
Q627
IC662
Q625
IC261
Q601
Q621
IC661
IC271
IC551
Q603
Q405
Q602
IC401
Q612
Q614
Q613
IC201
VR401
IC631
Q412
IC701
Q411 Q410
Q413
Q414
Q647 Q632
Q802 Q803
IC632 IC733
Q801
IC801
Q646

A TUNER AMP UNIT



SIDE A

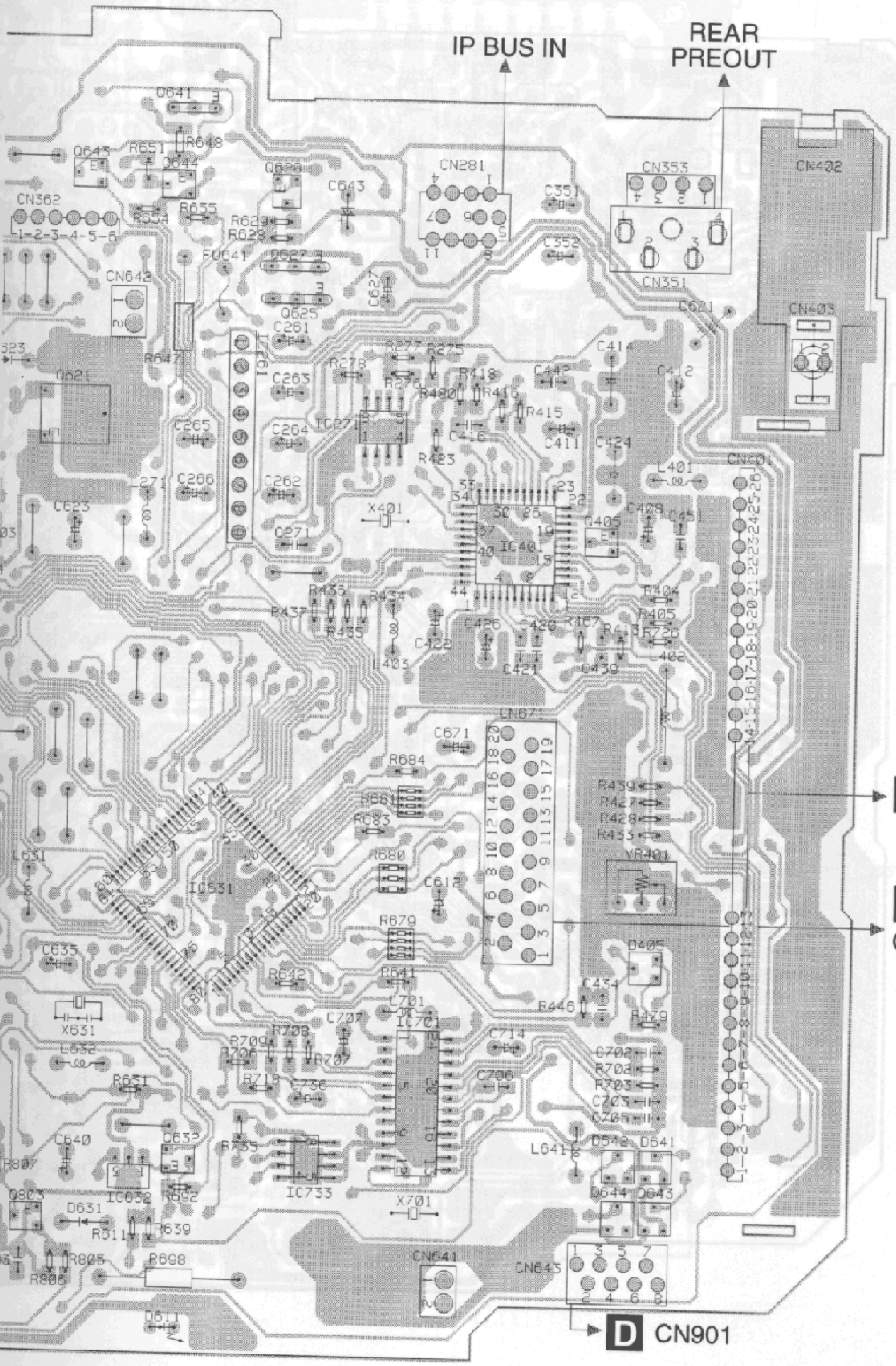


Fig. 13

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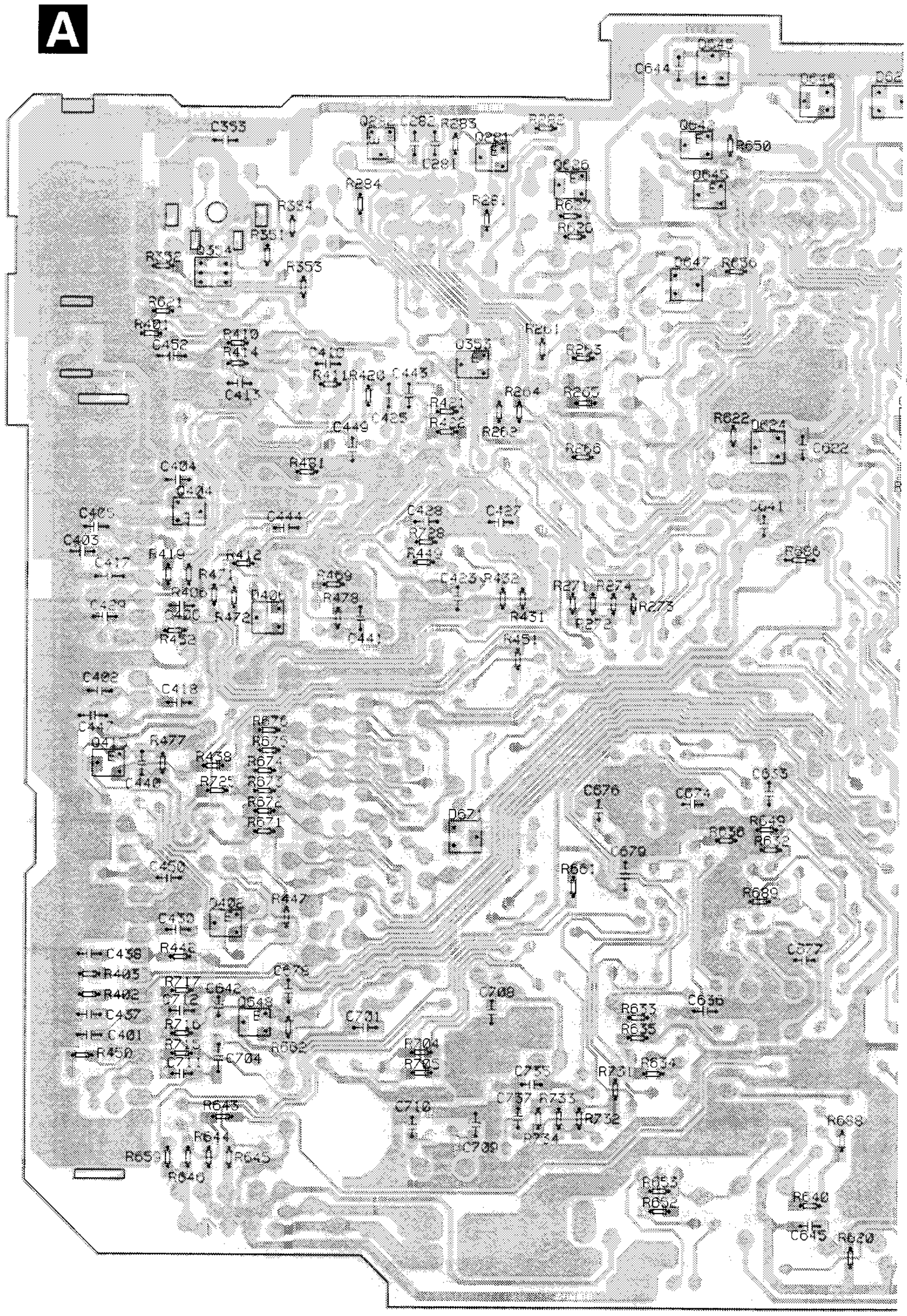
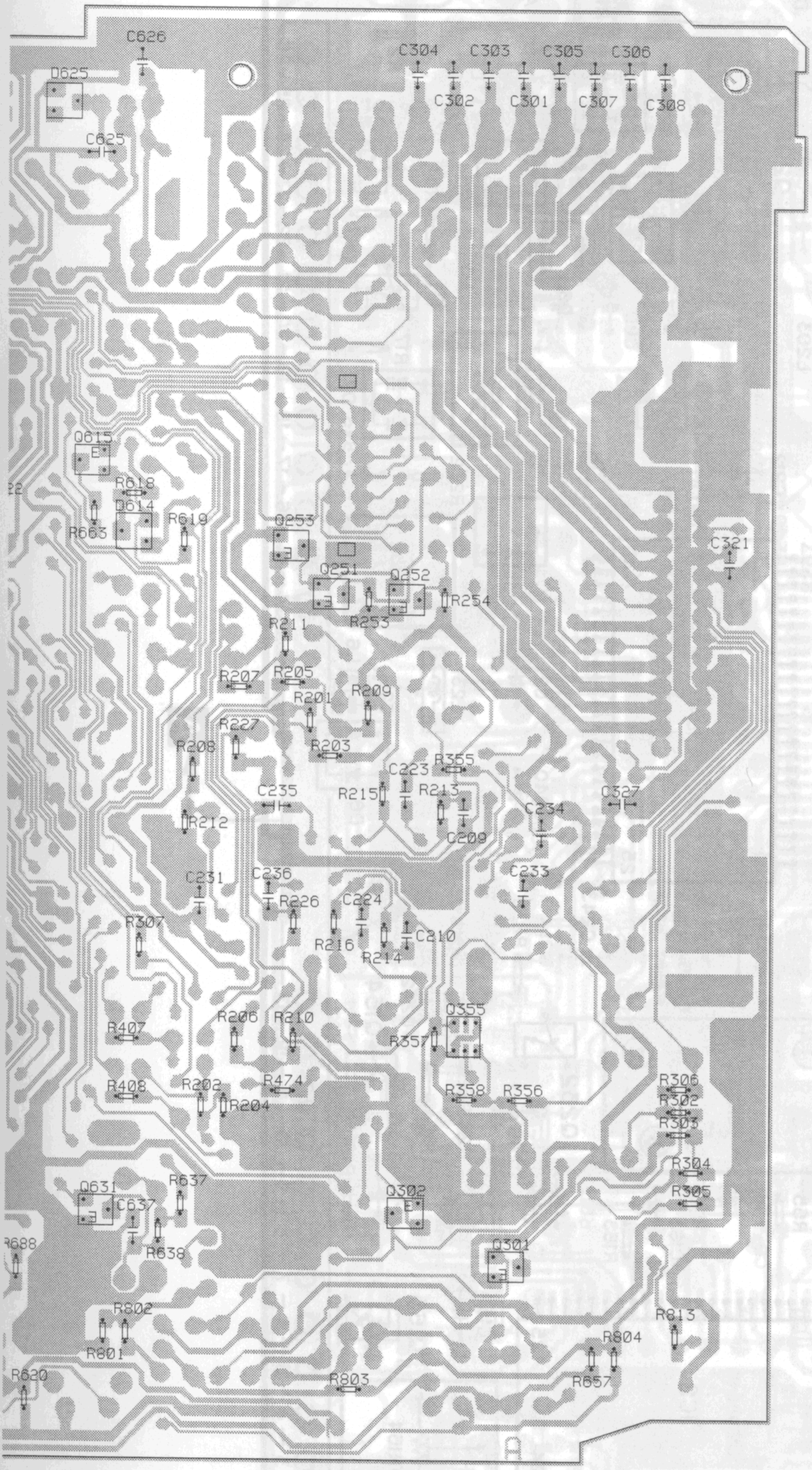
A


C644
C553
R284
R283
C282
C281
R650
R551
R353
R621
R452
R419
R406
R472
R478
R431
R451
R273
R477
R438
R725
R671
C450
R447
C430
R446
R405
R402
C457
C401
R450
C642
C643
C704
C701
C709
R204
R205
R634
R731
R732
R644
R645
R640
R652
C645
R620
R638
C635
C677
C670
R680
C673
C676
D621
R681
R622
D624
C622
R266
R271
R274
R272
R273
R431
R451
R447
R204
R205
R634
R731
R732
R638
R652
R640
R620

SIDE B



IC, Q

Q282
Q281 Q642

Q626 Q645

Q354

Q353

Q615

Q253
Q404
Q251 Q252

Q415

Q402 Q355

Q648

Q302
Q631

Q301

Fig. 14

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4.2 FM/AM TUNER UNIT

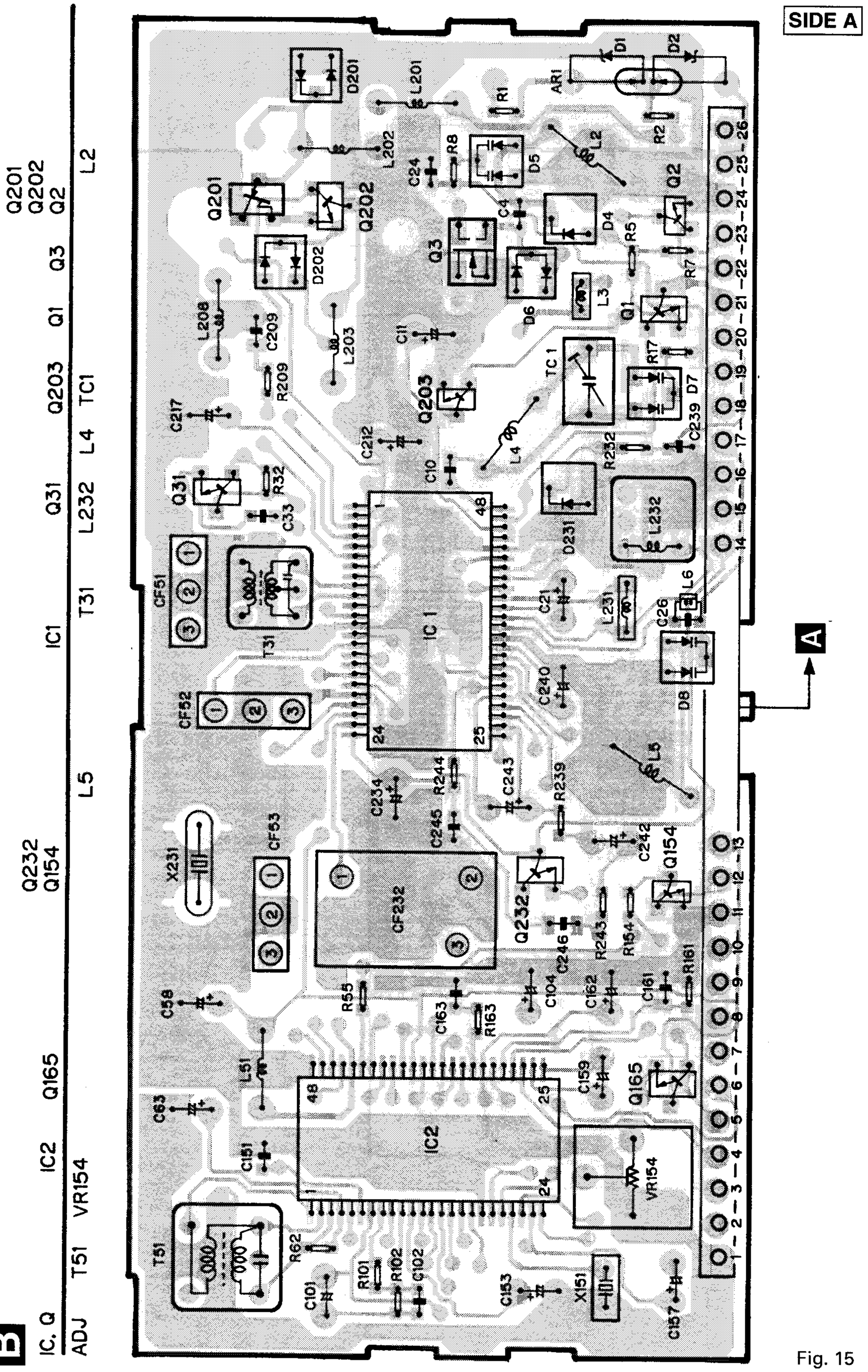

Fig. 15

SIDE B

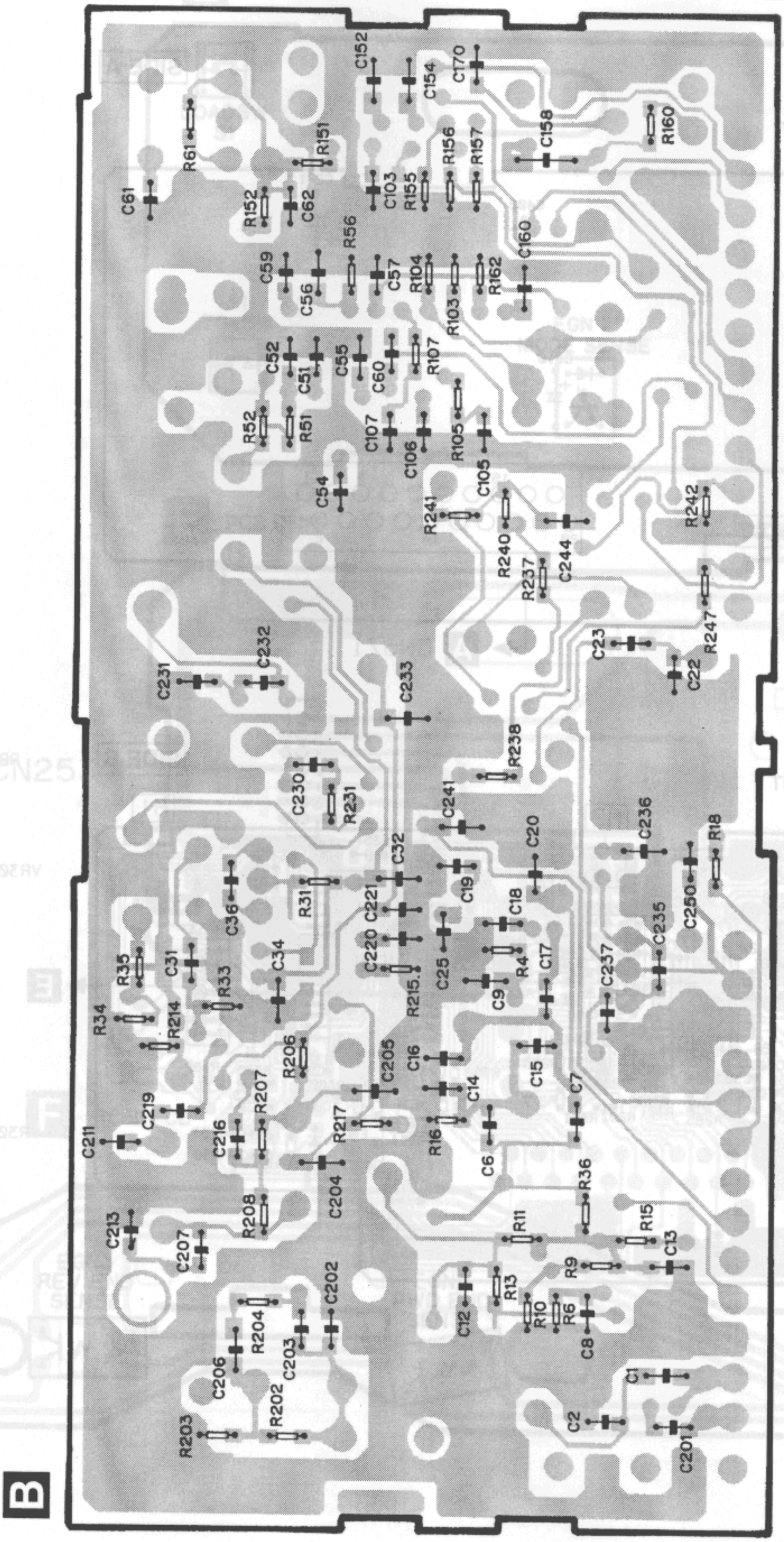

Fig. 16

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4.3 CASSETTE MECHANISM MODULE

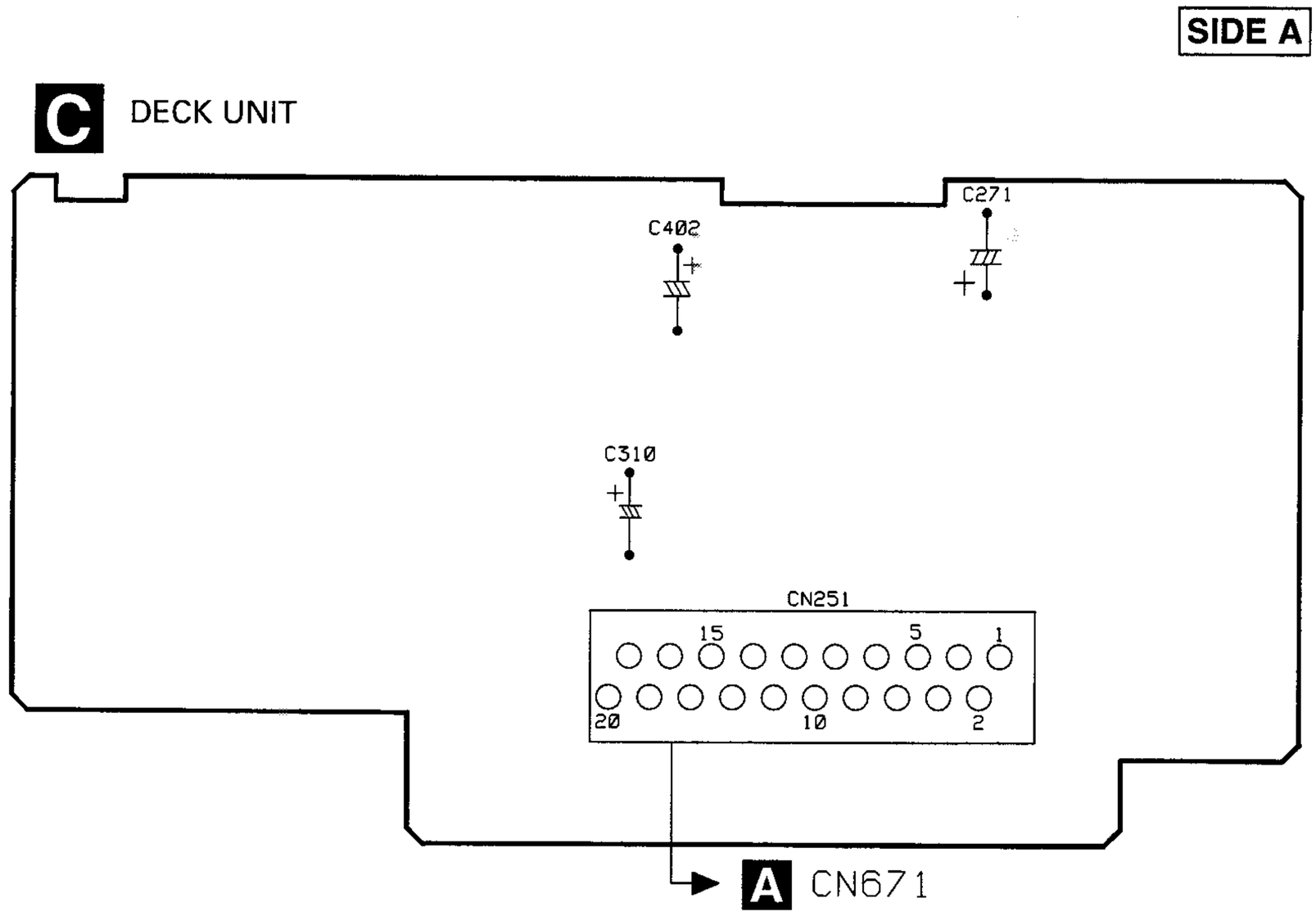

Fig. 17

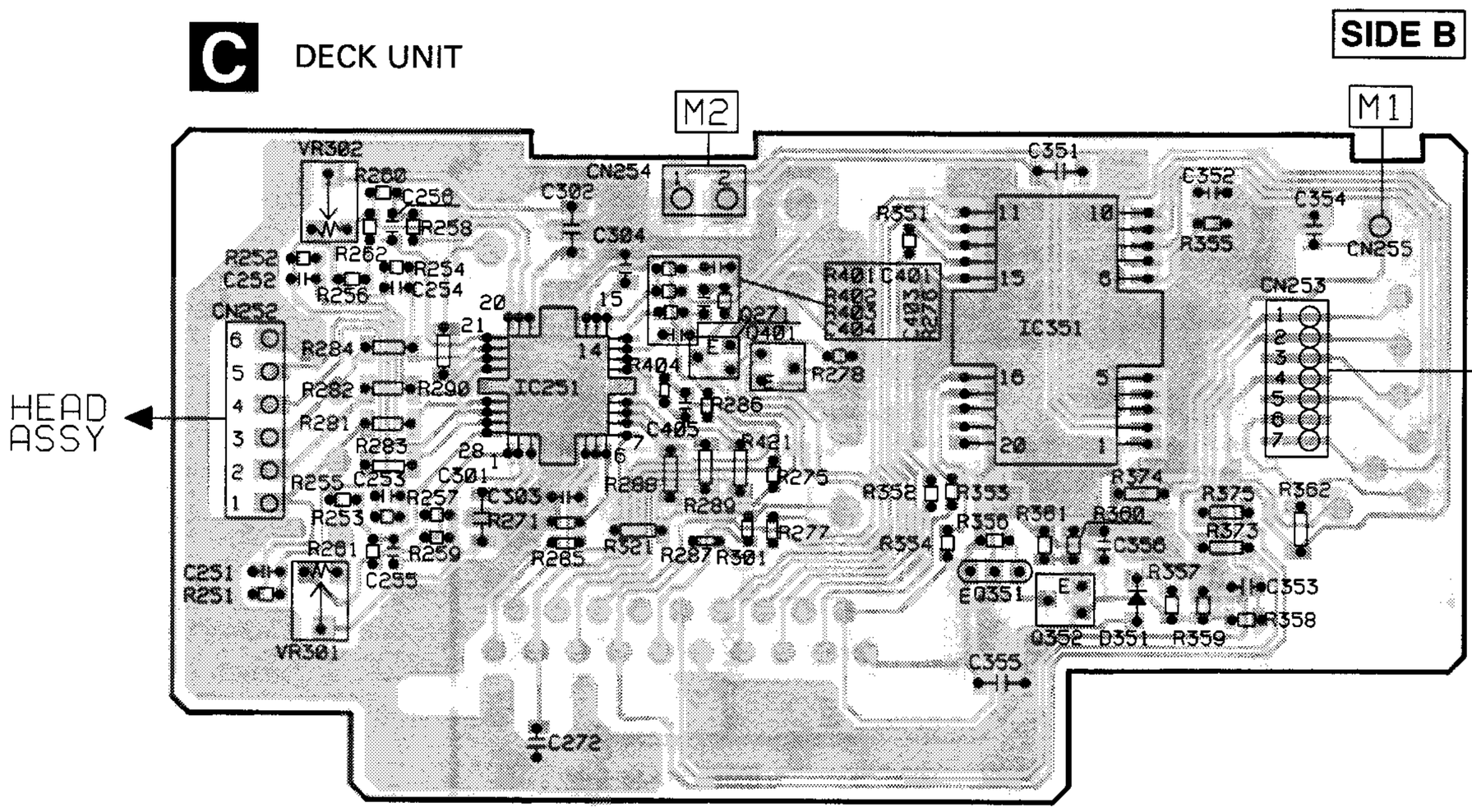

Fig. 18

ClibPDF - www.fastio.com

E PCB UNIT

SIDE A

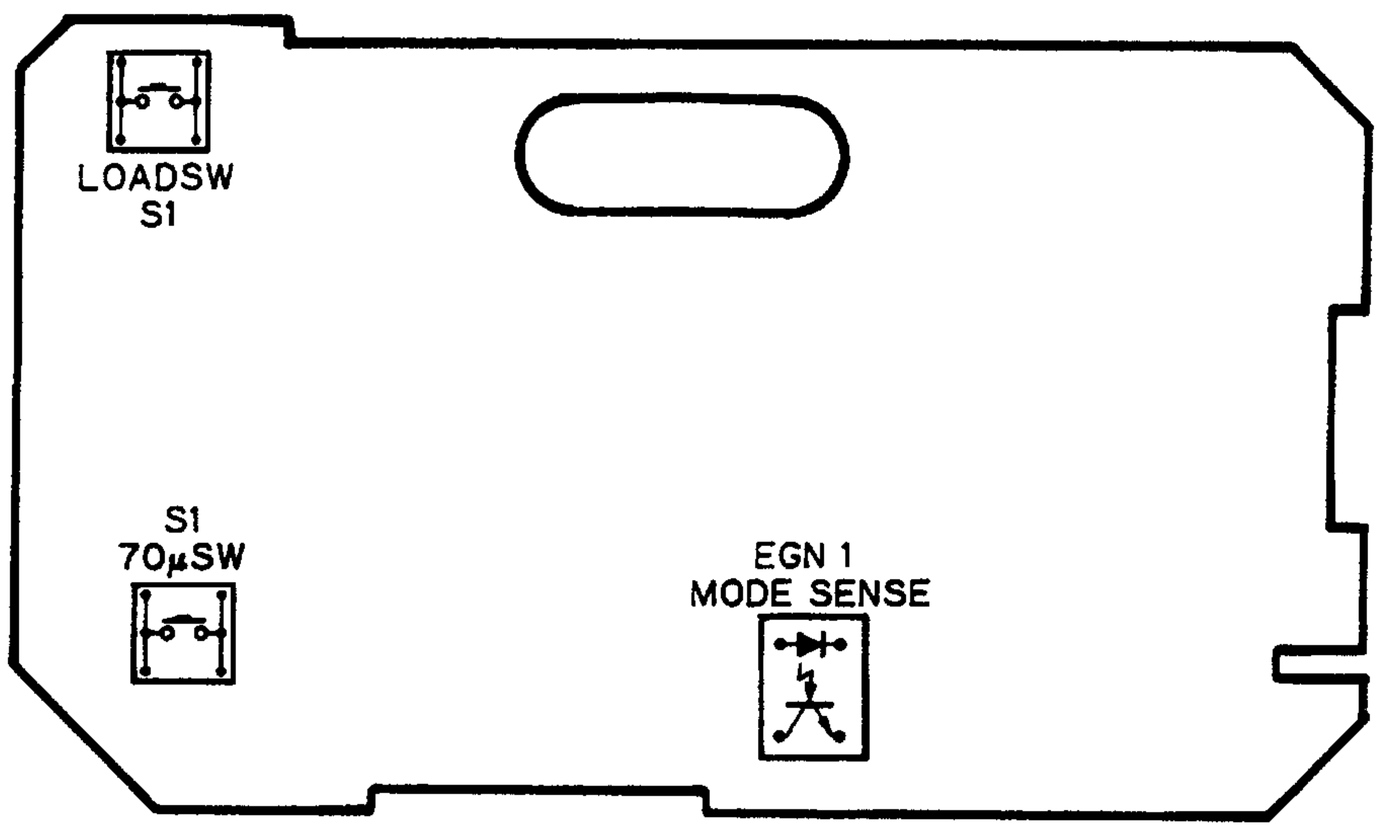

Fig. 19

E PCB UNIT

SIDE B

C CN253

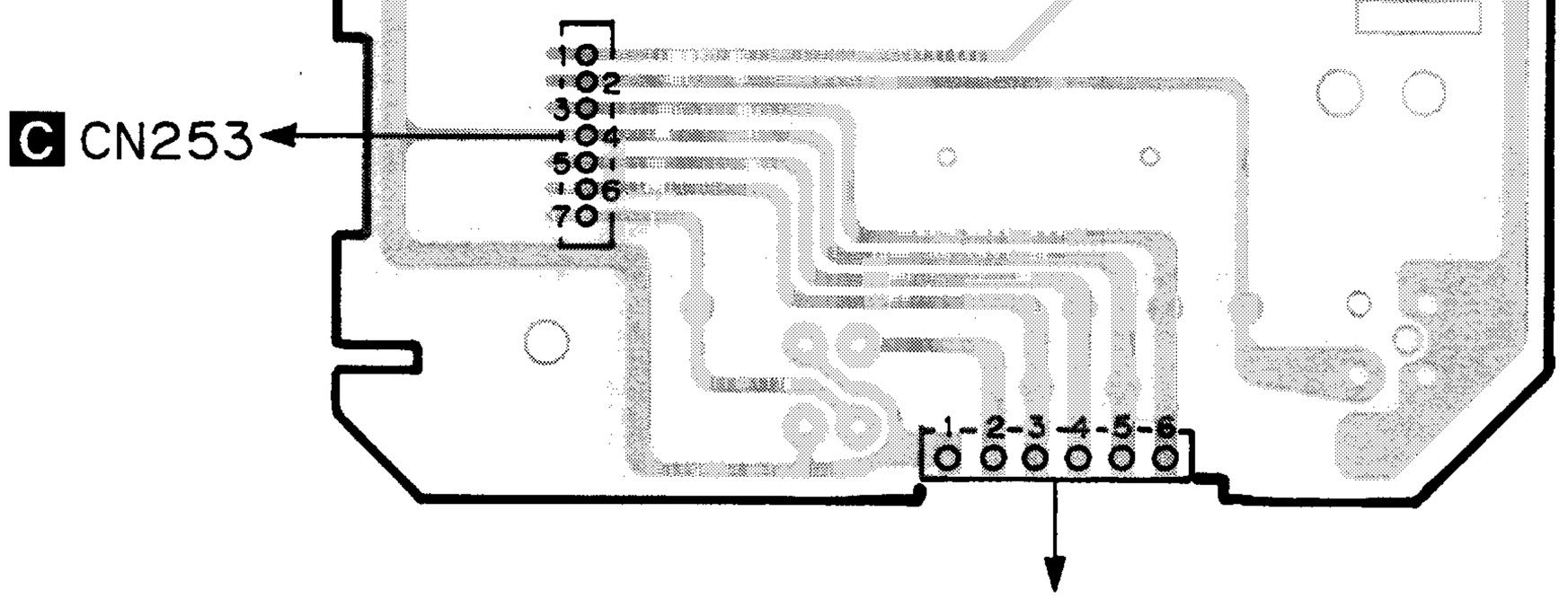

Fig. 20

F

F REEL PCB

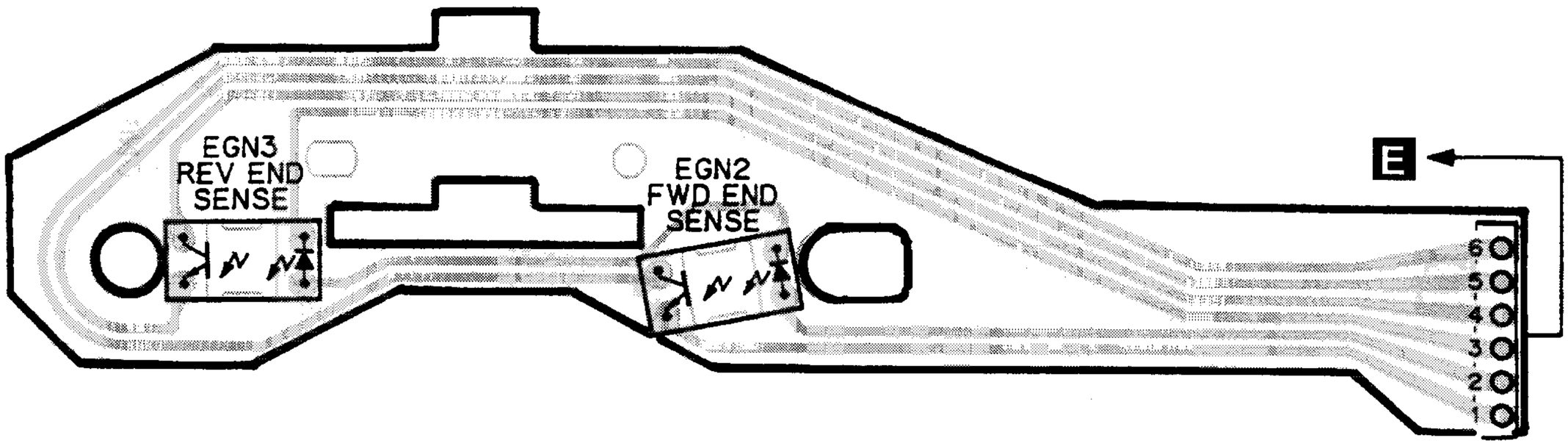

Fig. 21

ClibPDF - www.fastio.com

4.4 KEYBOARD PCB

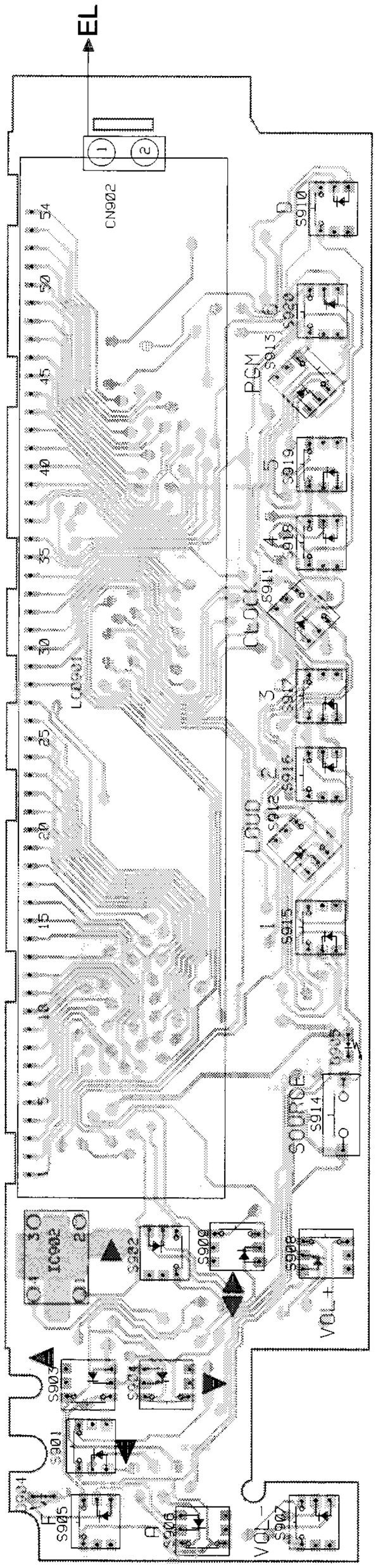

Fig. 22

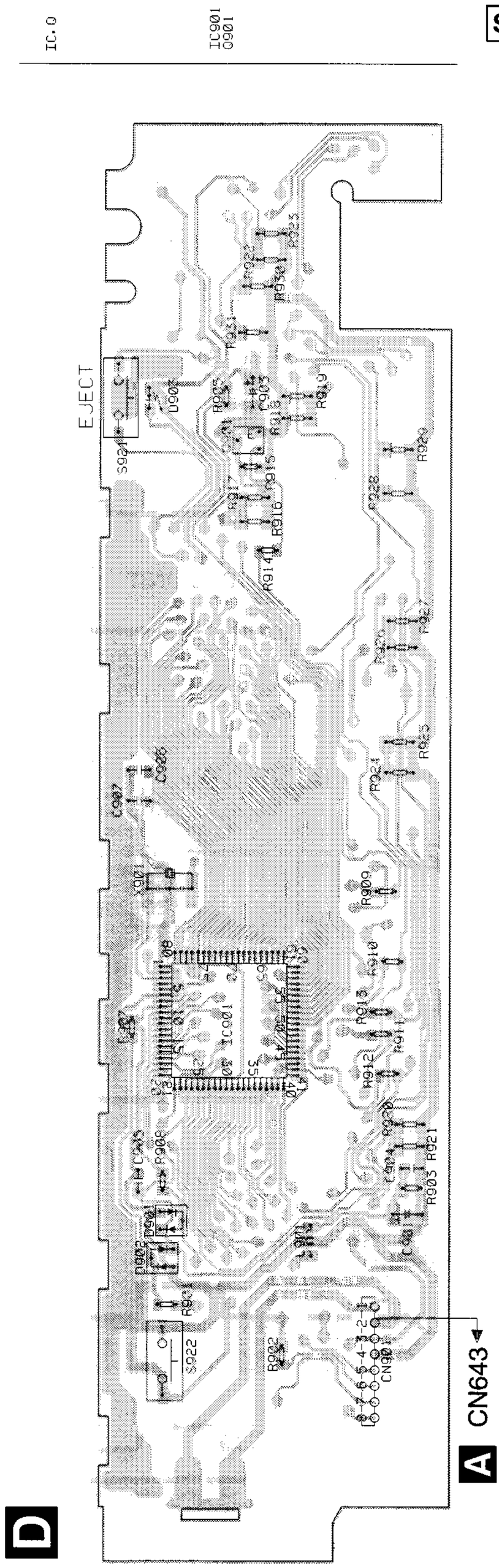

Fig. 23

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

  Chip Resistor

  RS1/○S○○○J,RS1/○○S○○○J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....

=====Circuit Symbol & No.===Part Name			Part No.
B		Unit Number :CWE1417(KEH-P616/UC,KEH-P6600/UC)	
		Unit Number :CWE1485(KEH-P6650/ES)	
		Unit Name :FM/AM Tuner Unit	
MISCELLANEOUS			
IC	1	IC	PA4023B
IC	2	IC	PA4024A
Q	1	Transistor	2SC2412KLN
Q	2	Transistor	DTC124EU
Q	3	FET	3SK263
Q	31	Transistor	2SC2412KLN
Q	201	FET	2SK932
Q	202	Transistor	2SC2412KLN
Q	203	Transistor	DTC124EU
D	1	Diode	RD39JS
D	2	Diode	RD39JS
D	4	Diode	1SV250
D	5	Diode	KV1410-F1
D	6	Diode	MA157
D	7	Diode	KV1410-F1
D	8	Diode	KV1410-F1
D	201	Diode	MA157
D	202	Diode	MA157
D	231	Diode	SVC253
L	2	Coil	CTC1108
L	3	Inductor	LCTB2R2K2125
L	4	Coil	CTC1108
L	5	Coil	CTC1107
L	6	Inductor(KEH-P6650/ES)	LCTBR15K1608
L	51	Ferri-Inductor	LAU150K
L	201	Ferri-Inductor	LAU4R7K
L	202	Ferri-Inductor	LAU330K
L	203	Inductor	CTF1287
L	208	Inductor	LAU121K
L	231	Inductor	LCTA3R3J3225
T	31	Coil	CTE1116
T	51	Coil	CTC1136
CF	51	Ceramic Filter	CTF1290
CF	52	Ceramic Filter	CTF1290
CF	53	Ceramic Filter	CTF1290
CF	232	Ceramic Filter	CTF1348
X	151	Resonator 920.5kHz	CSS1365
X	231	Crystal Resonator 10.26MHz	CSS1111
VR	154	Semi-fixed 150kΩ(B)	CCP1213
RESISTORS			
R	1		RS1/16S225J
R	2		RS1/16S225J
R	4		RS1/16S154J
R	5		RS1/16S391J
R	6		RS1/16S223J
R	7		RS1/16S123J
R	8		RS1/16S332J
R	9		RS1/16S473J
R	10		RS1/16S223J
R	11		RS1/16S124J
R	13		RS1/16S563J
R	15		RS1/16S271J
R	16		RS1/16S104J
R	17		RS1/16S332J
R	18		RS1/16S332J
R	31		RS1/16S470J
R	32		RS1/16S822J
R	33		RS1/16S822J
R	34		RS1/16S331J
R	35		RS1/16S331J
R	51		RS1/16S271J
R	52		RS1/16S560J
R	55		RS1/16S102J
R	56		RS1/16S823J
R	61		RS1/16S392J
R	62		RS1/16S273J
R	101		RS1/16S272J
R	102		RS1/16S682J
R	103		RS1/16S333J
R	104		RS1/16S334J
R	105		RS1/16S683J
R	107		RS1/16S222J
R	151		RS1/16S222J
R	152		RS1/16S393J
R	155		RS1/16S273J
R	156		RS1/16S243J
R	157		RS1/16S203J
R	160		RS1/16S222J
R	161		RS1/16S563J
R	162		RS1/16S105J
R	163		RS1/16S223J
R	202		RS1/16S223J
R	203		RS1/16S225J
R	204		RS1/16S103J
R	206		RS1/16S220J
R	207		RS1/16S101J
R	208		RS1/16S102J
R	209		RS1/16S471J
R	214		RS1/16S822J
R	215		RS1/16S822J
R	217		RS1/16S102J
R	231		RS1/16S272J
R	232		RS1/16S473J
R	237		RS1/16S103J
R	238		RS1/16S104J
R	239		RS1/16S104J
R	240		RS1/16S332J
R	241		RS1/16S202J
R	243		RS1/16S183J
R	244		RS1/16S392J
R	247		RS1/16S123J

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Circuit Symbol & No.			Part Name	Part No.
CAPACITORS				
C	1			CCSQCH6R0D50
C	2			CCSRCK2R0C50
C	4			CCSRCH820J50
C	6			CCSRCH820J50
C	8			CKSRYB103K25
C	9			CKSQYB104K16
C	10			CCSRCKR50C50
C	11			CEJA1R0M50
C	12			CKSRYB222K50
C	13			CKSRYB222K50
C	14			CCSRCH220J50
C	15			CCSRCH6R0D50
C	16			CCSRCH8R0D50
C	17			CKSRYB222K50
C	18			CKSRYB103K25
C	19			CKSRYB222K50
C	20			CKSRYB222K50
C	21			CEJA100M16
C	22			CCSRTH9R0D50
C	23			CCSRTH120J50
C	24			CCSRCH471J50
C	25			CKSRYB103K25
C	26		(KEH-P616/UC,KEH-P6600/UC)	CCSRCH101J50
C	31			CKSRYB103K25
C	32			CKSQYB472K50
C	33			CCSRCH5R0C50
C	34			CKSQYB104K16
C	36			CCSRRH201J50
C	51			CKSRYB223K25
C	52			CKSRYB103K25
C	54			CCSRCH470J50
C	55			CKSQYB223K25
C	56			CKSQYB104K16
C	57			CKSRYB472K50
C	58			CEJA330M10
C	59			CKSRYB103K25
C	60			CKSRYB102K50
C	61			CCSRCH270J50
C	62			CKSRYB103K25
C	63			CEJAR22M50
C	101			CEJANP100M10
C	102			CKSRYB182K50
C	103			CKSRYB682K25
C	104			CEJA2R2M50
C	105			CKSRYB103K25
C	106			CCSRCH151J50
C	107			CKSRYB103K25
C	151			CKSRYB472K50
C	152			CKSQYB104K16
C	153			CEJA3R3M50
C	154			CKSQYB104K16
C	157			CEJA3R3M50
C	158			CKSYB474K16
C	159			CEJA220M6R3
C	160			CKSQYB104K16
C	161			CKSQYB104K16
C	162			CEJA3R3M50
C	163			CKSRYB102K50
C	170			CCSRCH100D50
C	201			CCSRCH471J50
C	202			CCSRCH100D50
C	203			CKSRYB332K50
C	204			CKSQYB473K16
C	205			CKSQYB473K16
C	206			CKSQYB104K16
C	207			CCSRCH560J50
C	209			CKSQYB104K16
C	211			CCSRCH101J50
C	212			CEJA470M6R3
C	213			CKSRYB103K25
C	216			CCSRCH101J50
C	217			CEJA1R5M50
C	219			CCSRCH471J50
C	220			CKSRYB103K25
C	230			CKSRYB103K25
C	231			CCSRCH330J50
C	232			CCSRCH150J50
C	233			CKSQYB104K16
C	234			CEJA330M10
C	235			CKSRYB332K50
C	236			CKSQYB473K16
C	237			CCSRCH120J50
C	239			CKSRYB472K50
C	240			CEJAR47M50
C	241			CKSQYB104K16
C	242			CEJAR47M50
C	243			CEJAR33M50
C	244			CKSQYB473K16
C	245			CKSRYB333K16
C	246			CKSQYB473K16
C	250			CCSRCH471J50

A Unit Number :CWM5322(KEH-P616/UC)
Unit Name :Tuner Amp Unit

MISCELLANEOUS

IC	201	IC	SN761027DL
IC	261	IC	TA2050S
IC	271	IC	CA0008AM
IC	401	IC	PM2005B
IC	551	IC	TDA7384A
IC	631	IC	PD4776A
IC	632	IC	S-80734ANDYI
IC	661	IC	TPD1018F
IC	662	IC	See Contrast table
IC	801	IC	See Contrast table
Q	251	Transistor	DTC114TK
Q	252	Transistor	DTC114TK
Q	253	Transistor	DTA124EK
Q	281	Transistor	2SA1037K
Q	282	Transistor	DTC114EK
Q	301	Transistor	DTC124EK
Q	302	Transistor	DTC124EK
Q	353	Transistor	DTA124EK
Q	354	Transistor	IMH3A
Q	355	Transistor	IMH3A
Q	404	Transistor	2SC2412K
Q	405	Transistor	DTC143EK
Q	601	Transistor	2SC2412K
Q	602	Transistor	2SC2412K
Q	603	Transistor	2SC2412K
Q	612	Transistor	See Contrast table
Q	613	Transistor	See Contrast table
Q	614	Transistor	See Contrast table
Q	621	Transistor	2SD1760F5
Q	622	Transistor	2SA1037K
Q	623	Transistor	DTC114EK
Q	624	Transistor	2SD2395
Q	625	Transistor	2SA1150
Q	626	Transistor	DTC124EK
Q	627	Transistor	2SA1150

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Circuit Symbol & No.	Part Name	Part No.
Q 628	Transistor	DTC124EK
Q 631	Transistor	DTC124EK
Q 632	Transistor	See Contrast table
Q 641	Transistor	2SD1189
Q 642	Transistor	2SA1037K
Q 643	Transistor	DTC114EK
Q 644	Transistor	DTC114EK
Q 645	Transistor	2SC3295
Q 646	Transistor	2SB1243
Q 647	Transistor	DTC143EK
Q 648	Transistor	2SA1037K
Q 801	Transistor	2SC2458
Q 802	Transistor	See Contrast table
Q 803	Transistor	See Contrast table
D 405	Diode	MA152WK
D 601	Diode	HZS7L(C2)
D 602	Diode	MA3062(M)
D 603	Diode	ERA15-02VH
D 611	LED	BR4361F
D 612	Diode	See Contrast table
D 613	Diode	See Contrast table
D 621	Diode	ERA15-02VH
D 622	Diode	ERA15-02VH
D 623	Diode	ERA15-02VH
D 624	Diode	MA3056(H)
D 625	Diode	MA3091(L)
D 631	Diode	1SS270
D 641	Diode	MA153
D 642	Diode	MA153
D 643	Diode	MA153
D 644	Diode	MA3062(M)
D 645	Diode	MA3075(L)
D 646	Diode	MA3043(H)
D 647	Diode	MA152WK
D 661	Diode	ERA15-02VH
D 662	Diode	See Contrast table
D 663	Diode	ERA15-02VH
D 664	Diode	See Contrast table
D 671	Diode	MA152K
D 801	Diode	HZS9L(A2)
D 802	Diode	1SS270
D 803	Diode	1SS270
D 804	Diode	See Contrast table
D 805	Diode	See Contrast table
L 271	Ferri-Inductor	LAU2R2K
L 401	Ferri-Inductor	LAU2R2K
L 403	Ferri-Inductor	LAU2R2K
L 631	Ferri-Inductor	LAU2R2K
L 632	Ferri-Inductor	LAU101K
L 641	Ferri-Inductor	LAU2R2K
X 401	Crystal Resonator 7.200MHz	CSS1379
X 631	Ceramic Resonator 6.29MHz	CSS1310
S 631	Switch	CSG1020
FU 641	0.4A Fuse	ICP-N10
BZ 631	Buzzer	CPV1011
	FM/AM Tuner Unit	See Contrast table

RESISTORS

R 205		RS1/10S332J
R 206		RS1/10S332J
R 207		RS1/10S122J
R 208		RS1/10S122J
R 209		RS1/10S472J
R 210		RS1/10S472J
R 211		RS1/10S472J
R 212		RS1/10S472J
R 213		RS1/10S272J
R 214		RS1/10S272J
R 215		RS1/10S151J
R 216		RS1/10S151J
R 226		See Contrast table
R 227		See Contrast table
R 241		RS1/10S0R0J
R 242		RS1/10S0R0J
R 245		RS1/10S0R0J
R 246		RS1/10S0R0J
R 247		RS1/10S0R0J
R 248		RS1/10S0R0J
R 251		RS1/10S821J
R 252		RS1/10S821J
R 253		RS1/10S104J
R 254		RS1/10S104J
R 261		RS1/10S181J
R 262		RS1/10S181J
R 263		RS1/10S223J
R 264		RS1/10S223J
R 265		RS1/10S102J
R 266		RS1/10S102J
R 271		RS1/10S102J
R 272		RS1/10S102J
R 273		RS1/10S473J
R 274		RS1/10S473J
R 275		RS1/10S101J
R 276		RS1/10S101J
R 277		RS1/10S620J
R 278		RS1/10S102J
R 281		RS1/10S223J
R 282		RS1/10S472J
R 283		RS1/10S222J
R 284		RS1/10S102J
R 301		RS1/10S103J
R 302		RS1/10S221J
R 303		RS1/10S153J
R 304		RS1/10S103J
R 305		RS1/10S182J
R 306		RS1/10S101J
R 307		RS1/10S102J
R 351		RS1/10S473J
R 352		RS1/10S473J
R 353		RS1/10S821J
R 354		RS1/10S821J
R 355		RS1/10S821J
R 356		RS1/10S821J
R 357		RS1/10S473J
R 358		RS1/10S473J
R 402		RS1/10S162J
R 403		RS1/10S162J
R 404		RS1/10S222J
R 405		RS1/10S222J
R 406		RS1/10S102J
R 407		RS1/10S0R0J
R 408		RS1/10S0R0J
R 410		RS1/10S681J
R 411		RS1/10S682J
R 413		RS1/10S102J
R 414		RS1/10S472J
R 415		RS1/10S682J
R 416		RS1/10S472J
R 418		RS1/10S561J
R 419		RS1/10S103J
R 420		RS1/10S152J
R 421		RS1/10S392J
R 422		RS1/10S392J

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Circuit Symbol & No.		Part Name	Part No.
R	423		RS1/10S272J
R	427		RS1/10S473J
R	431		RS1/10S473J
R	432		RS1/10S472J
R	433		RS1/10S473J
R	434		RS1/10S102J
R	435		RS1/10S102J
R	436		RS1/10S102J
R	437		RS1/10S102J
R	439		RS1/10S472J
R	442		RS1/10S102J
R	446		RS1/10S393J
R	451		RS1/10S473J
R	452		RS1/10S0R0J
R	469		See Contrast table
R	471		RS1/10S103J
R	472		RS1/10S223J
R	479		RS1/10S103J
R	480		RS1/10S222J
R	481		RS1/10S0R0J
R	601		RS1/10S223J
R	602		RS1/10S473J
R	603		RS1/10S473J
R	604		RS1/10S223J
R	605		RS1/10S473J
R	606		RS1/10S473J
R	607		RS1/10S103J
R	608		RS1/10S103J
R	609		RS1/10S473J
R	610		RS1/10S473J
R	611		See Contrast table
R	612		See Contrast table
R	613		See Contrast table
R	614		See Contrast table
R	615		See Contrast table
R	616		See Contrast table
R	617		See Contrast table
R	621		RS1/10S101J
R	622		RS1/10S472J
R	623		RS1/10S473J
R	624		RS1/10S472J
R	625		RS1/10S471J
R	626		RS1/10S103J
R	627		RS1/10S222J
R	628		RS1/10S103J
R	629		RS1/10S222J
R	631		RS1/10S473J
R	632		RS1/10S103J
R	633		RS1/10S473J
R	634		See Contrast table
R	635		See Contrast table
R	636		RS1/10S473J
R	637		RS1/10S152J
R	638		RS1/10S152J
R	639		RS1/10S822J
R	640		RS1/10S472J
R	641		RS1/10S472J
R	642		RS1/10S472J
R	643		RS1/10S222J
R	644		RS1/10S472J
R	645		RS1/10S472J
R	646		RS1/10S222J
R	647		RS2PMF6R8J
R	648		RS1/4S681J
R	650		RS1/10S473J

Circuit Symbol & No.		Part Name	Part No.
R	651		RS1/10S472J
R	652		See Contrast table
R	654		RS1/10S102J
R	655		RS1/10S224J
R	656		RS1/10S204J
R	657		RS1/10S222J
R	658		RD1/4PU152J
R	661		RS1/10S222J
R	662		RS1/10S223J
R	665		RS1/10S103J
R	667		See Contrast table
R	671		RS1/10S473J
R	672		RS1/10S473J
R	673		RS1/10S473J
R	674		RS1/10S473J
R	675		RS1/10S473J
R	676		RS1/10S473J
R	679		RA4C222J
R	680		RA3C222J
R	681		RA4C681J
R	683		RS1/10S222J
R	684		RS1/10S222J
R	685		See Contrast table
R	686		See Contrast table
R	688		RS1/10S473J
R	689		See Contrast table
R	692		RS1/10S102J
R	694		RD1/4PU102J
R	695		RS1/10S222J
R	696		RD1/4PU102J
R	697		See Contrast table
R	698		RS2PMF220J
R	699		RD1/4PU152J
R	725		RS1/10S562J
R	726		RS1/10S222J
R	728		RS1/10S473J
R	801		RS1/10S223J
R	802		RS1/10S103J
R	803		RS1/10S472J
R	804		See Contrast table
R	805		See Contrast table
R	806		See Contrast table
R	807		See Contrast table
R	808		See Contrast table
R	809		See Contrast table
R	810		See Contrast table
R	811		See Contrast table
R	812		See Contrast table
R	813		See Contrast table

CAPACITORS

Circuit Symbol & No.		Part Name	Part No.
C	201		CEJA4R7M35
C	202		CEJA4R7M35
C	203		CEJA4R7M35
C	204		CEJA4R7M35
C	205		CEJANP4R7M16
C	206		CEJANP4R7M16
C	207		CEJANP100M10
C	208		CEJANP100M10
C	209		CKSQYB822K50
C	210		CKSQYB822K50
C	211		CEJA1R0M50
C	212		CEJA1R0M50
C	217		CKSQYB183K50
C	218		CKSQYB183K50
C	219		CKSQYB102K50

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=====Circuit Symbol & No.===Part Name			Part No.
C	220		CKSQYB102K50
C	221		CEJANP2R2M35
C	222		CEJANP2R2M35
C	223		CKSQYB333K50
C	224		CKSQYB333K50
C	227		CEJA220M16
C	228		CEJA2R2M50
C	231		CKSQYB104K50
C	232		CEJA470M10
C	233		CKSQYB104K50
C	234		CKSQYB103K50
C	235		See Contrast table
C	236		See Contrast table
C	251		CEJA2R2M50
C	252		CEJA2R2M50
C	261		CEJA1R0M50
C	262		CEJA1R0M50
C	263		CEJA1R0M50
C	264		CEJA1R0M50
C	265		CEJA100M16
C	266		CEJA100M16
C	271		CKSQYB102K50
C	281		CKSQYB104K50
C	282		CKSQYB102K50
C	311		CEJAR22M50
C	312		CEJAR22M50
C	313		CEJAR22M50
C	314		CEJAR22M50
C	321		CKSQYB104K50
C	322	4700µF/16V	CCH1188
C	323		CEJA100M16
C	324		CEJA1R0M50
C	325		CEJA1R0M50
C	326		CEJA330M10
C	351		CEJA2R2M50
C	352		CEJA2R2M50
C	354		CEJA2R2M50
C	355		CEJA2R2M50
C	401		CKSQYB223K50
C	402		CKSQYB273K50
C	403		CKSQYB103K50
C	404		CKSQYB223K50
C	406		CKSQYB102K50
C	408		CEJA220M16
C	410		CKSQYB103K50
C	411		CEJA220M6R3
C	412		CEJA220M16
C	413		CKSQYB103K50
C	414	4.7µF/16V	CCH1250
C	416		CKSQYB103K50
C	417		CKLSR473K16
C	418		CKSQYB103K50
C	420		CKSQYB103K50
C	421		CKSQYB103K50
C	422		CEJA220M6R3
C	423		CKSQYB102K50
C	424	4.7µF/16V	CCH1250
C	425		CKSQYB103K50
C	427		CCSQCH150K50
C	428		CCSQCH150K50
C	429		CKSQYB223K50
C	434		CCSQCH101K50
C	437		CKSQYB473K50
C	438		CKSQYB473K50
C	439		CCSQCH101K50

=====Circuit Symbol & No.===Part Name			Part No.
C	442		CKSQYB103K50
C	443		CKSQYB103K50
C	444		CKSQYB103K50
C	449		CKSQYB332K50
C	450		CKSQYB102K50
C	451		CKSQYB102K50
C	601		CKSYB105K16
C	611		See Contrast table
C	612		CEJA100M16
C	621	1500µF/16V	CCH1201
C	622		CKSQYB103K50
C	623		CEJA470M10
C	624		CEJA101M10
C	625		CKSQYB103K50
C	626		CKSQYB473K50
C	627		CEJA101M10
C	635		CEJA4R7M35
C	636		CKSQYB103K50
C	637		CKSQYB103K50
C	640		CEJA2R2M50
C	641		CCSQCH101K50
C	642		CCSQCH101K50
C	643		CEAS471M10
C	644		CKSQYB103K50
C	645		CCSQCH101K50
C	661		CKSQYB473K50
C	662		See Contrast table
C	671		CEJA100M16
C	674		CCSQCH101K50
C	676		CCSQCH101K50
C	677		CCSQCH101K50
C	678		CKSQYB102K50
C	801		See Contrast table
C	802		See Contrast table
C	803		See Contrast table

Keyboard Unit
Consists of
Keyboard PCB
Switch PCB

DG Unit Number : CWM5561(KEH-P616/UC)
Unit Number : CWM5448(KEH-P6600/UC,KEH-P6650/ES)
Unit Name : Keyboard Unit

MISCELLANEOUS

IC	901	IC	PD6208B
IC	902	HIC Module	RS-140
Q	901	Transistor	2SC2712
D	901	Diode	MA153
D	902	Diode	MA153
D	903	LED	CL170PGCD
D	904	LED	CL170PGCD
D	905	LED	CL170PGCD
L	901	Inductor	LCTA4R7J3225
X	901	Ceramic Resonator 4.915MHz	CSS1084
S	641	Switch	CSN1027
S	901	Push Switch	CSG1085
S	902	Push Switch	CSG1085
S	903	Push Switch	CSG1085
S	904	Push Switch	CSG1084
S	905	Push Switch	CSG1084
S	906	Push Switch	CSG1084
S	907	Push Switch	CSG1084
S	908	Push Switch	CSG1085
S	909	Push Switch	CSG1084

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Circuit Symbol & No.	Part Name	Part No.
S 910	Push Switch	CSG1084
S 911	Push Switch	CSG1084
S 912	Push Switch	CSG1084
S 913	Push Switch	CSG1084
S 914	Switch	CSG1043
S 915	Push Switch	CSG1085
S 916	Push Switch	CSG1084
S 917	Push Switch	CSG1085
S 918	Push Switch	CSG1084
S 919	Push Switch	CSG1085
S 920	Push Switch	CSG1084
S 921	Switch	CSG1043
LCD 901	LCD	CAW1420
RESISTORS		
R 901		RS1/10S222J
R 902		RS1/10S222J
R 903		RS1/10S472J
R 905		RS1/10S121J
R 907		RS1/10S470J
R 908		RS1/10S470J
R 909		RS1/10S2R2J
R 910		RS1/10S470J
R 911		RS1/10S470J
R 912		RS1/10S470J
R 913		RS1/10S470J
R 914		RS1/10S103J
R 916		RS1/8S152J
R 917		RS1/8S152J
R 918		RS1/8S391J
R 920		RS1/8S391J
R 922		RS1/8S391J
R 924		RS1/8S391J
R 926		RS1/8S391J
R 928		RS1/8S391J
R 930		RS1/8S391J
CAPACITORS		
C 901		CSZSR100M6R3
C 903		CSZSR100M6R3
C 904		CKSQYB104K50
C 905		CKSQYB103K50
C 906		CKSQYB103K50
C 907		CKSQYB103K50

C Unit Number : EWM1011(KEH-P616/UC)
Unit Number : EWM1010(KEH-P6600/UC, KEH-P6650/ES)
Unit Name : Deck Unit

Circuit Symbol & No.	Part Name	Part No.
MISCELLANEOUS		
IC 251	IC	HA12192F
IC 351	IC	PA2020A
Q 271	Transistor	2SC4116
Q 351	Transistor	2SB1260
Q 352	Transistor	2SC4102
Q 401	Transistor	DTC114EU
D 351	Diode	1SS355
VR 301	Semi-fixed 33kΩ(B)	CCP1280
VR 302	Semi-fixed 33kΩ(B)	CCP1280
RESISTORS		
R 251	(KEH-P616/UC)	RS1/16S333J
R 252	(KEH-P616/UC)	RS1/16S333J
R 253	(KEH-P616/UC)	RS1/16S333J
R 254	(KEH-P616/UC)	RS1/16S333J
R 255		RS1/16S181J
R 256		RS1/16S181J
R 257		RS1/16S183J
R 258		RS1/16S183J
R 259		RS1/16S133J
R 260		RS1/16S133J
R 261		RS1/16S274J
R 262		RS1/16S274J
R 271		RS1/16S183J
R 275		RS1/16S473J
R 276		RS1/16S104J
R 277		RS1/16S224J
R 278		RS1/16S104J
R 281		RS1/8S0R0J
R 282		RS1/8S0R0J
R 283		RS1/8S0R0J
R 284		RS1/8S0R0J
R 285		RS1/16S0R0J
R 286		RS1/16S0R0J
R 287		RS1/16S0R0J
R 288		RS1/8S0R0J
R 289		RS1/8S0R0J
R 290		RS1/8S0R0J
R 301		RS1/16S0R0J
R 321		RS1/8S0R0J
R 351		RS1/16S102J
R 352		RS1/16S102J
R 353		RS1/16S102J
R 354		RS1/16S102J
R 355		RS1/10S274J
R 356		RS1/10S202J
R 357		RS1/10S472J
R 358		RS1/10S103J
R 359		RS1/10S103J
R 360		RS1/10S102J
R 361		RS1/10S622J
R 362		RS1/8S181J
R 373		RS1/8S0R0J
R 374		RS1/8S0R0J
R 375		RS1/8S0R0J
R 401		RS1/16S123J
R 402		RS1/16S332J
R 403		RS1/16S911J
R 404		RS1/16S274J
R 421		RS1/8S0R0J
CAPACITORS		
C 251	(KEH-P616/UC)	CKSRYB331K50
	(KEH-P6600/UC, KEH-P6650/ES)	CKSRYB391K50
C 252	(KEH-P616/UC)	CKSRYB331K50
	(KEH-P6600/UC, KEH-P6650/ES)	CKSRYB391K50
C 253	(KEH-P616/UC)	CKSRYB331K50
	(KEH-P6600/UC, KEH-P6650/ES)	CKSRYB391K50
C 254	(KEH-P616/UC)	CKSRYB331K50
	(KEH-P6600/UC, KEH-P6650/ES)	CKSRYB391K50
C 255		CKSRYB103K50
C 256		CKSRYB103K50
C 271		CEJA1R0M50
C 272		CKSQYB104K16
C 301		CKSYB474K16
C 302		CKSYB474K16
C 303		CKSQYB104K16
C 304		CKSQYB104K16
C 351		CKSYB224K25
C 352		CKSQYB392K50
C 353		CKSQYB103K50
C 354		CKSQYB473K50

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=====Circuit Symbol & No.===Part Name			Part No.
C	355		CKSYB104K50
C	356		CKSQYB103K50
C	401		CKSRYB472K50
C	402		CEJA1R0M50
C	403		CKSRYB223K25
C	404		CKSRYB103K50
C	405		CKSRYB333K16
E	Unit Number :		
	Unit Name :PCB Unit		
S	1	Switch (Load)	ESG1004
S	2	Switch (70μS)	ESG1004
EGN	1	Photo-Interrupter	EGN1005

=====Circuit Symbol & No.===Part Name			Part No.
F	Unit Number :		
	Unit Name :Reel PCB		
EGN	2	Photo-Interrupter	EGN1006
EGN	3	Photo-Interrupter	EGN1006
Miscellaneous Parts List			
M	1	Motor Unit (Main)	EXA1491
M	2	Motor Unit (Sub)	EXA1485
HD	1	Head Assy (KEH-P616/UC)	EXA1508
HD	1	Head Assy (KEH-P6600/UC, P6650/ES)	EXA1506

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CONTRAST TABLE of TUNER AMP UNIT

KEH-P616/UC,KEH-P6600/UC and KEH-P6650/ES have the same construction except for the following:

Symbol & Description		Part No.		
		KEH-P616/UC	KEH-P6600/UC	KEH-P6650/ES
Tuner Amp Unit		CWM5322	CWM5320	CWM5265
IC 662	IC	TPD1018F	TPD1018F	Not used
IC 801	IC	TPD1018F	Not used	Not used
Q 612	Transistor	2SA1037K	2SA1037K	Not used
Q 613	Transistor	DTC124EK	DTC124EK	Not used
Q 614	Transistor	2SC2412K	2SC2412K	Not used
Q 632	Transistor	DTA144TK	DTA144TK	Not used
Q 802,803	Transistor	2SC2412K	Not used	Not used
D 612,613,662,664	Diode	ERA15-02VH	ERA15-02VH	Not used
D 804,805	Diode	ERA15-02VH	Not used	Not used
R 226		RS1/10S103J	RS1/10S103J	Not used
R 227		RS1/10S102J	RS1/10S102J	Not used
R 450		Not used	Not used	RS1/10S182J
R 467		Not used	Not used	RS1/10S0R0J
R 469		RS1/10S0R0J	RS1/10S0R0J	Not used
R 611		RS1/10S751J	RS1/10S751J	Not used
R 612,667		RS1/10S103J	RS1/10S103J	Not used
R 613,614,615		RS1/10S223J	RS1/10S223J	Not used
R 616		RS1/10S272J	RS1/10S272J	Not used
R 617		RS1/10S473J	RS1/10S473J	Not used
R 634,689		RS1/10S473J	RS1/10S473J	Not used
R 635		RS1/10S473J	Not used	RS1/10S473J
R 652		RS1/10S471J	RS1/10S471J	Not used
R 653		Not used	Not used	RS1/10S471J
R 685		RD1/4PU102J	RD1/4PU102J	Not used
R 686		RS1/8S473J	RS1/8S473J	Not used
R 697		RD1/4PU0R0J	RD1/4PU0R0J	Not used
R 804		RS1/10S473J	Not used	Not used
R 805		RS1/10S124J	Not used	Not used
R 806		RS1/10S123J	Not used	Not used
R 807,808		RS1/10S473J	Not used	Not used
R 809		RS1/10S223J	Not used	Not used
R 810		RS1/10S272J	Not used	Not used
R 811,812		RD1/4PU102J	Not used	Not used
R 813		RS1/10S103J	Not used	Not used
C 235,236		CKSQYB473K50	CKSQYB473K50	Not used
C 611		CKSQYB103K50	CKSQYB103K50	Not used
C 662		CKSQYB473K50	CKSQYB473K50	Not used
C 801,803		CKSQYB473K50	Not used	Not used
C 802		CKSQYB103K50	Not used	Not used
FM/AM Tuner Unit		CWE1417	CWE1417	CWE1485

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6. ADJUSTMENT

● Connection Diagram

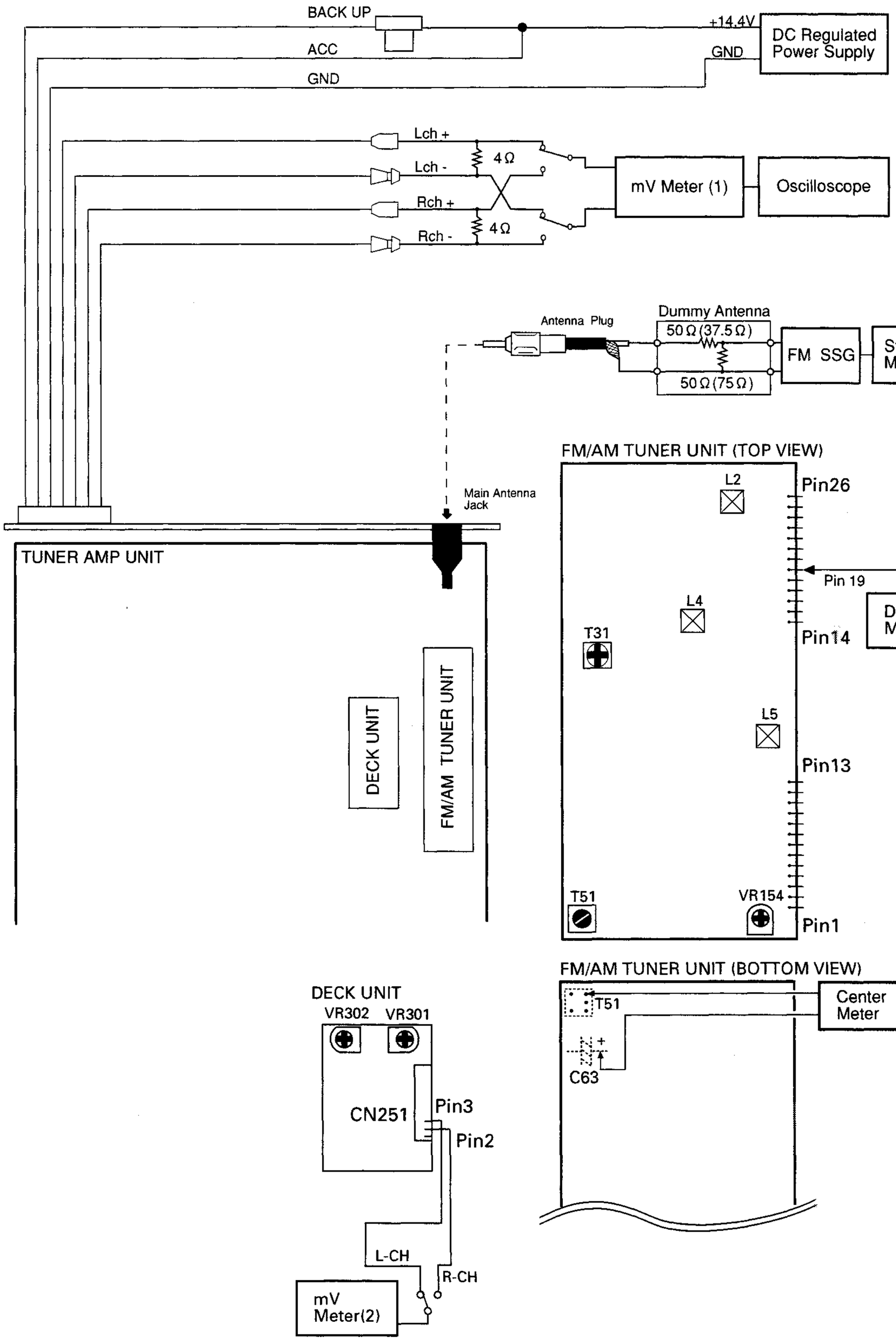

Fig. 24

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Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.) or 400Hz 100%(75kHz Dev.)
S:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

FM ADJUSTMENT(UC MODEL)

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	•••••	•••••	107.9	L5	DC V Meter(1) : 6V
IF	2	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	3	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	4	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	5	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	6	98.1 S	40	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

FM ADJUSTMENT(ES MODEL)

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	•••••	•••••	108.0	L5	DC V Meter(1) : 6V
IF	2	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	3	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	4	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	5	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	6	98.1 S	40	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

DOLBY B NR ADJUSTMENT

No.	Test Tape	Adjustment Point	Adjustment Method (Switch Position)
1	NCT-150 (400Hz,200nwb/m)	VR301(Lch),VR302(Rch)	mV Meter(2) : –8.24dBs±1.0dB (DOLBY NR Switch : OFF)

● **For Repair of the Detach Grille Assy, Use the Extension-Cord Tool GGD1056.**

● **For Repair of the Cassette Mechanism Module, Use the Extension-Cord Tool GGD1121.**

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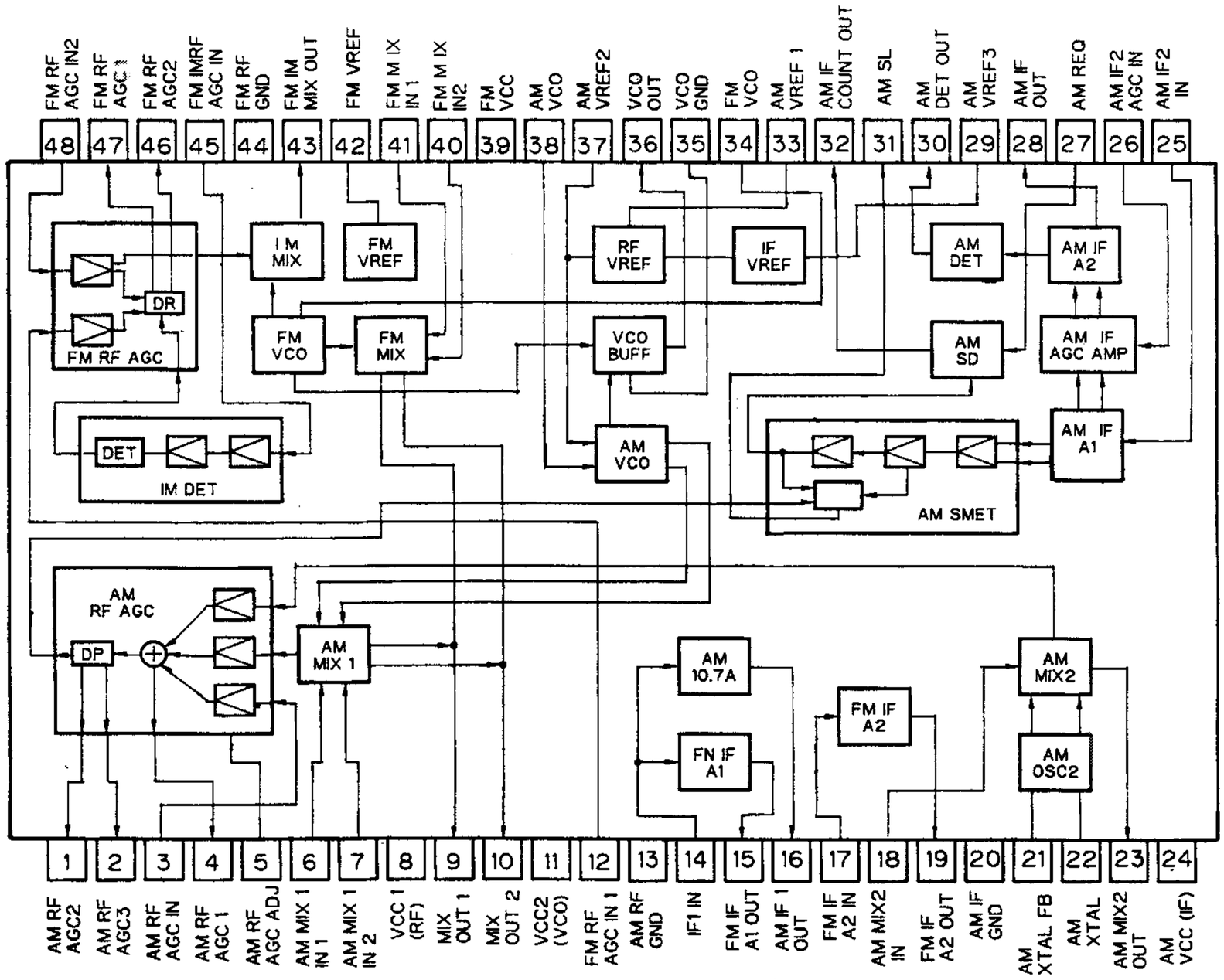
7. GENERAL INFORMATION

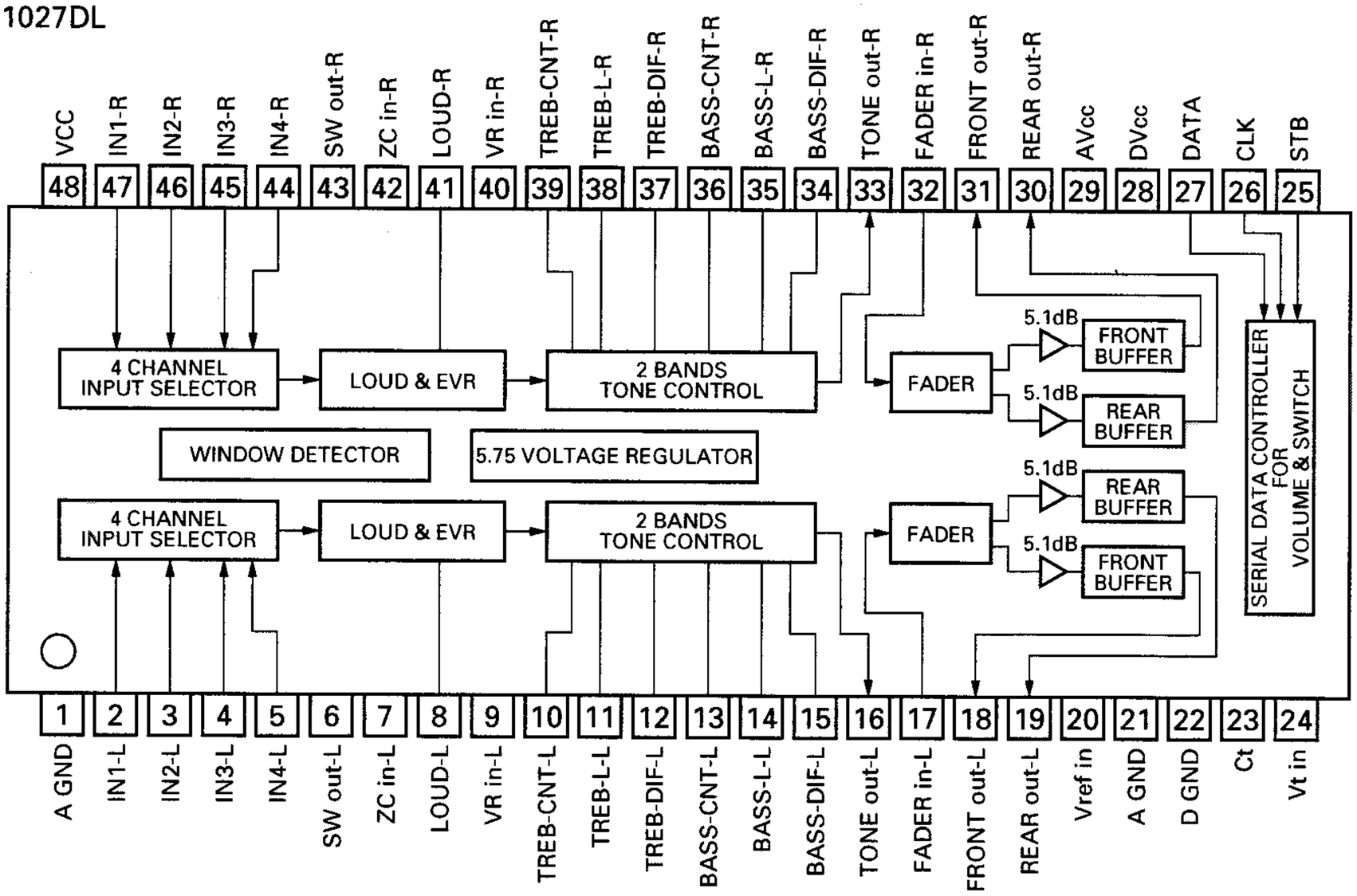
7.1 PARTS

7.1.1 IC

PA4023B



*SN761027DL



IC's marked by are MOS type.*
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

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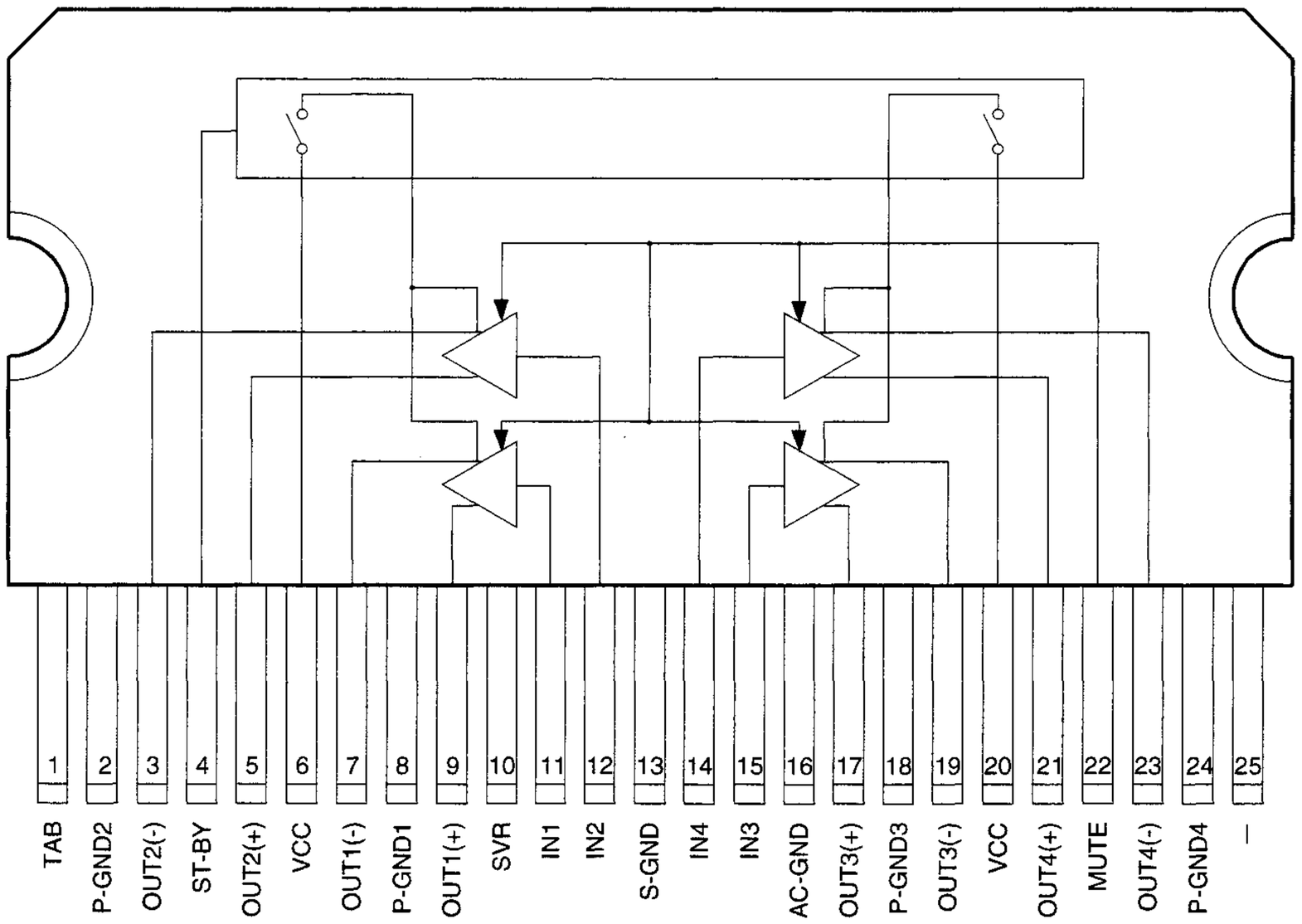
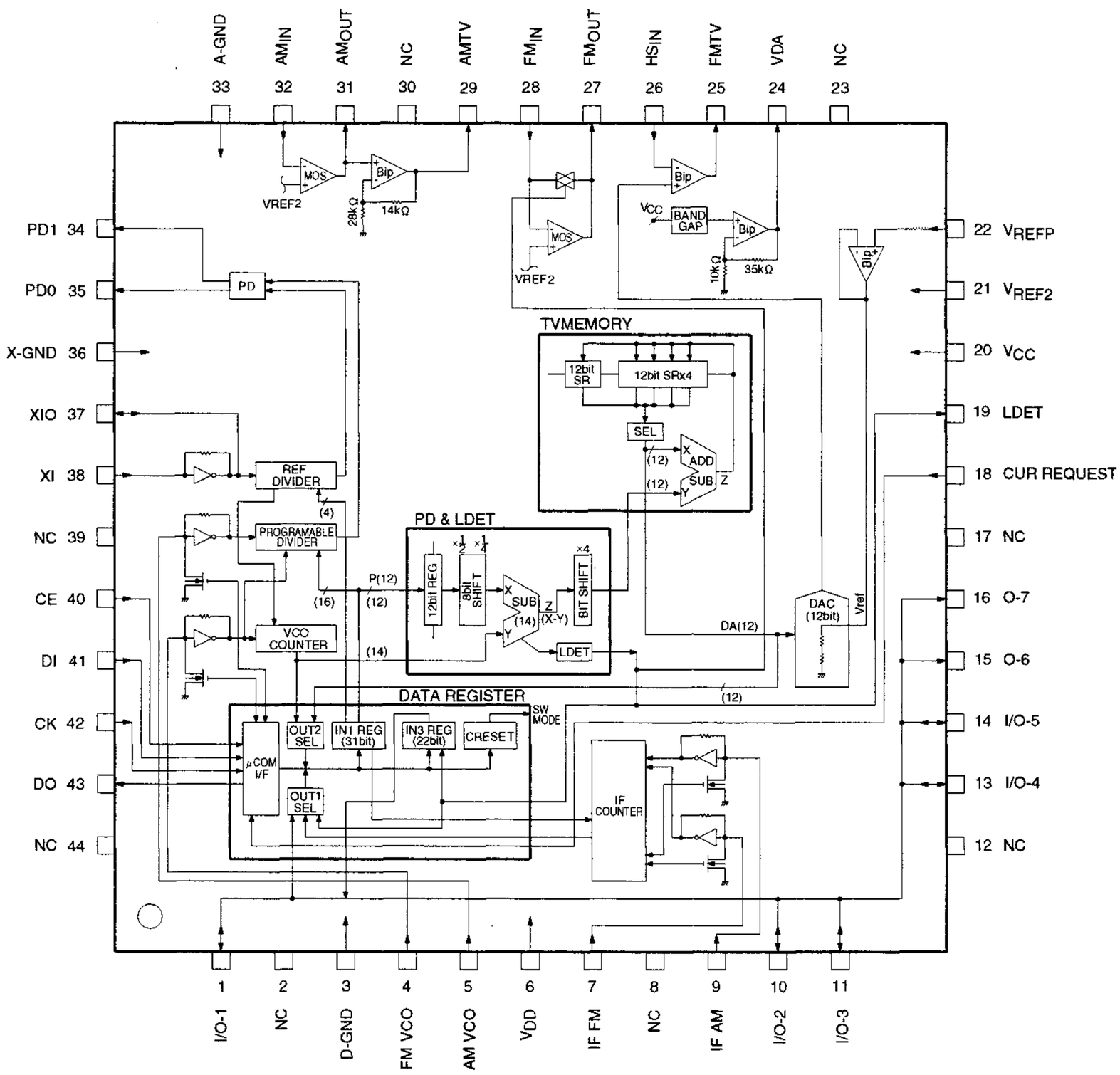
TDA7384A



PM2005B



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● Pin Functions(PD4776A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	$\overline{\text{CLOSE}}$	I		Flap close sense input
2,3	NC			Not used
4	AVSS			A/D GND
5,6	NC			Not used
7	AVREF1			(Connect to VDD)
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	$\overline{\text{SWVDD}}$	O	C	Grille power supply control output
11–13	NC			Not used
14	MSIN	I		MS sense input
15	$\overline{\text{MTLSW}}$	I		Metal sense input
16	POS	I		Position sense input
17	RES	I		Cassette mechanism reverse end sense input
18	NES	I		Cassette mechanism foward end sense input
19	DIRO	O	C	Head F/R select output
20	PLAY	O	C	MS gain select output
21	DIM	O	C	Dimmer select output
22	NR	O	C	NR output
23	SC2	O	C	Cassette mechanism sub motor control output
24	SC1	O	C	Cassette mechanism sub motor control output
25	CM	O	C	Cassette mechanism capstan motor control output
26	$\overline{\text{STBY}}$	O	C	Drive IC control output
27	LOADSW	I		Tape loading input
28	LPFSW	O	C	FIE output
29	PDI	I		PLL IC data input
30	PCK	O	C	PLL IC clock output
31	PDO	O	C	PLL IC data output
32	PCE	O	C	PLL IC chip enable output
33	VSS			GND
34	ST	I		Stereo input
35	NC			Not used
36	SD	I		SD input
37	MOSENS	I		Motion/window damage sensor input
38	$\overline{\text{DLED}}$	O	N	Alarm LED output
39	DOORH	O	N	Door system select output
40	DRELAY	O	C	External relay output
41	ASENBO	O	C	Slave power supply control output
42	NC			Not used
43	AM	O	C	AM power control output
44	$\overline{\text{MUTE}}$	O	C	System mute output
45	PEE	O	C	PEE sound output
46	VST	O	C	Electronic volume strobe pulse output
47	NC			Not used
48	VCK	O	C	Electronic volume clock output
49	VDT	O	C	Electronic volume data output
50	FM	O	C	FM power control output
51	SYSPW	O	C	System power supply control output
52	NC			Not used
53	NC			Pull down
54	$\overline{\text{ISENS}}$	I		Illumination sense input
55	DLSENS	I		Door lock sense input
56	TX	O	C	IP BUS data output
57	RX	I		IP BUS data input
58	DRSENS	I		Door open/close sense input
59	STCUT	O	C	Starter cut off output
60	$\overline{\text{RESET}}$	I		Reset input
61	NC			Not used
62	NC			Pull down

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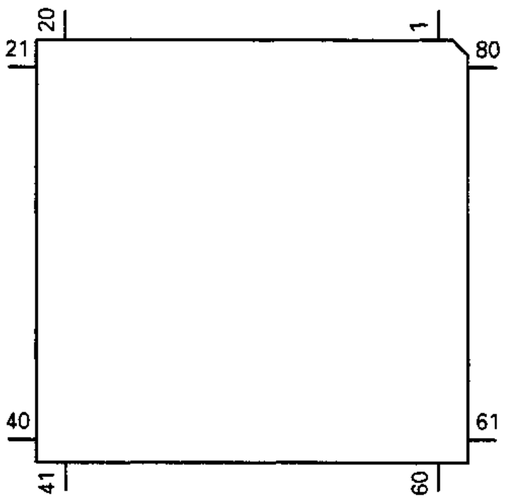
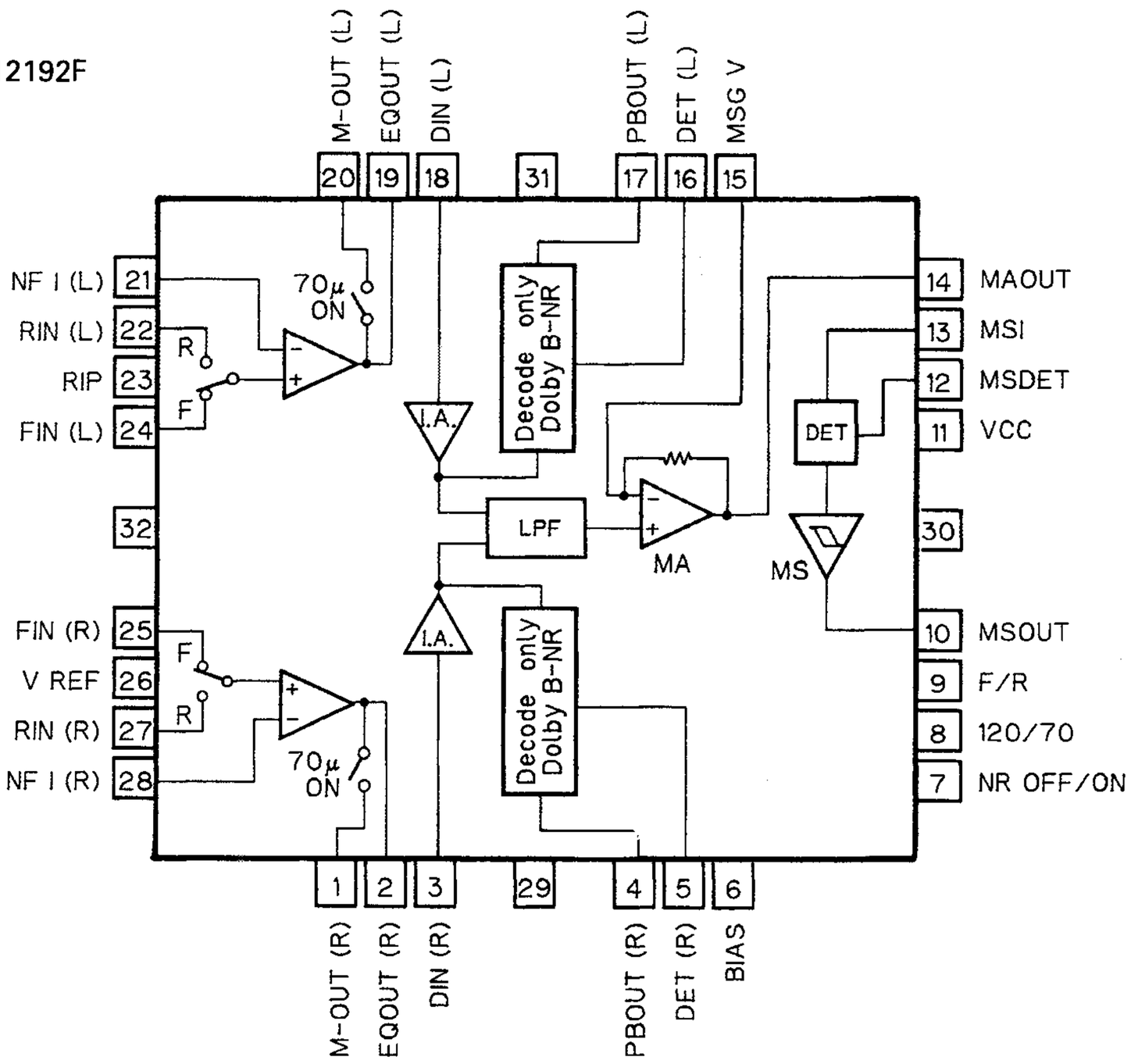
Pin No.	Pin Name	I/O	Format	Function and Operation
63	$\overline{\text{BSENS}}$	I		Back up power sense input
64	$\overline{\text{ASENS}}$	I		ACC power sense input
65	$\overline{\text{DSENS}}$	I		Grille detach sense input
66	CLKIN	I		Clock input
67	ILMPW	O	C	Illumination power supply control output
68	VDD			Power supply
69	X2			Crystal oscillator connection pin
70	X1			Crystal oscillator connection pin
71	IC			GND
72	NC			Not used
73	TESTIN	I		Test program mode input
74	AVDD	I		Positive power supply terminal for analog circuit
75	NC			Not used
76	SL	I		Signal level input
77	SEL	I		Destination select input
78,79	NC			Not used
80	LCDPW	O	C	LCD back light power supply control output

*PD4776A



Format	Meaning
C	C MOS
N	N channel open drain

HA12192F



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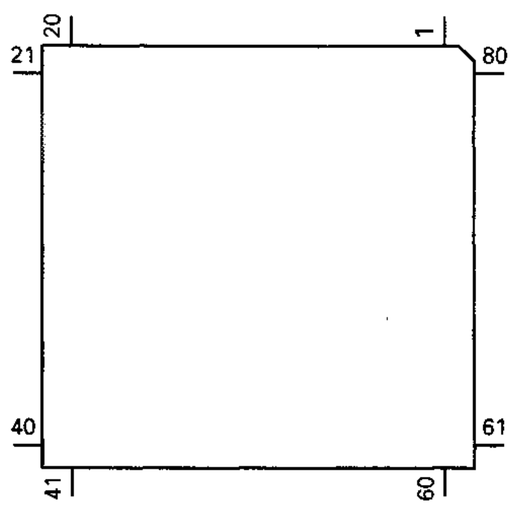
● Pin Functions(PD6208B)

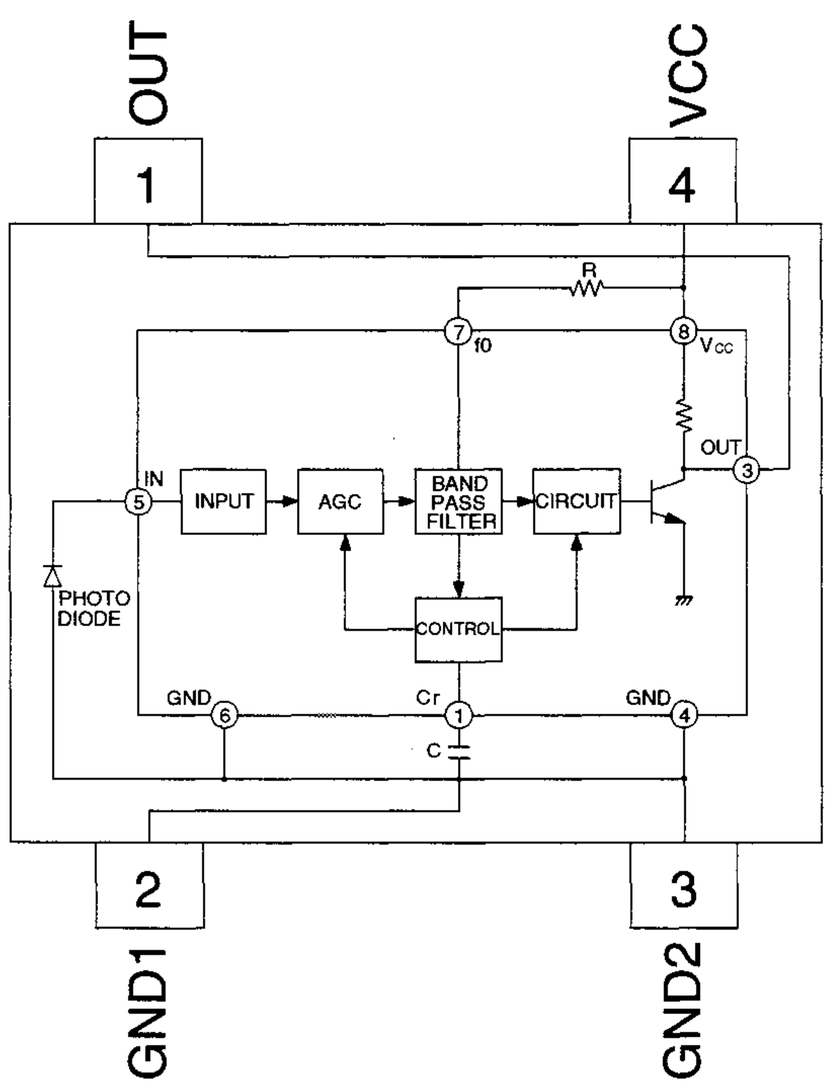
Pin No.	Pin Name	I/O	Format	Function and Operation
1	VSS			GND
2	X1			Crystal oscillator connection pin
3	X0			Crystal oscillator connection pin
4	$\overline{RST}$	I		System reset input
5	MOD1	I		Operation mode appointment input 1
6	MOD0	I		Operation mode appointment input 0
7	LED	O	C	LED control output
8	SO	O	C	UART output
9	SI	I		UART input
10	REM	I		Remote control reception input
11,12	NC			Not used
13–16	KD4-1	I		Matrix key return input 4-1
17–22	KS6-1	O	N	Matrix key strobe output 6-1
23	VCC			Power supply
24–73	SEG49-0	O		LCD segment signal output 49-0
74–77	COM3-0	O		LCD common signal output 3-0
78	V3			LCD bias power supply
79	V2			LCD bias power supply
80	V1			LCD bias power supply

*PD6208B



Format	Meaning
C	C MOS
N	N channel open drain

RS-140



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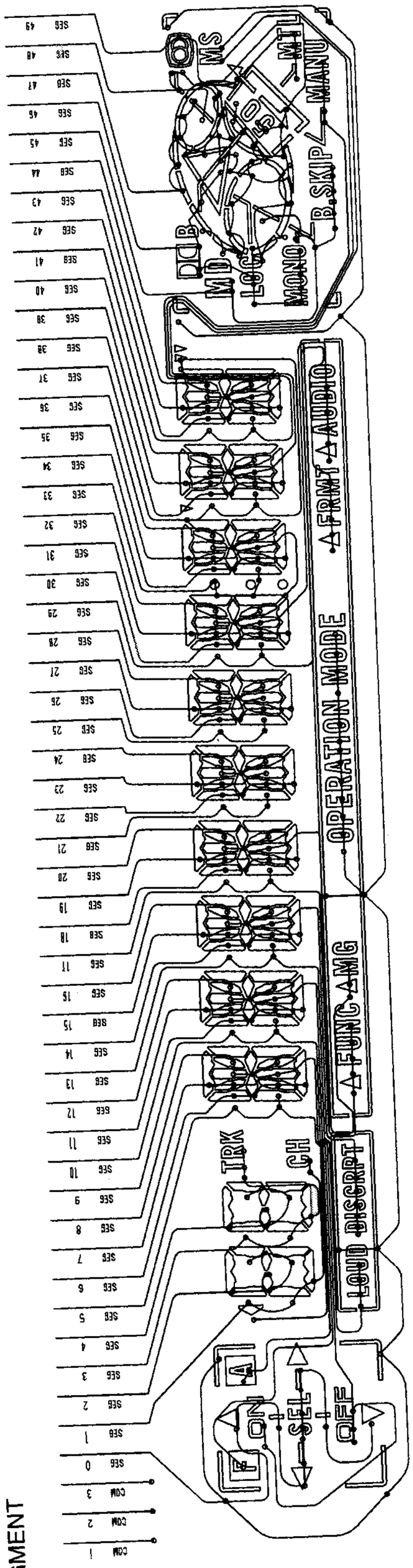
7.1.2 DISPLAY

● CAW1420



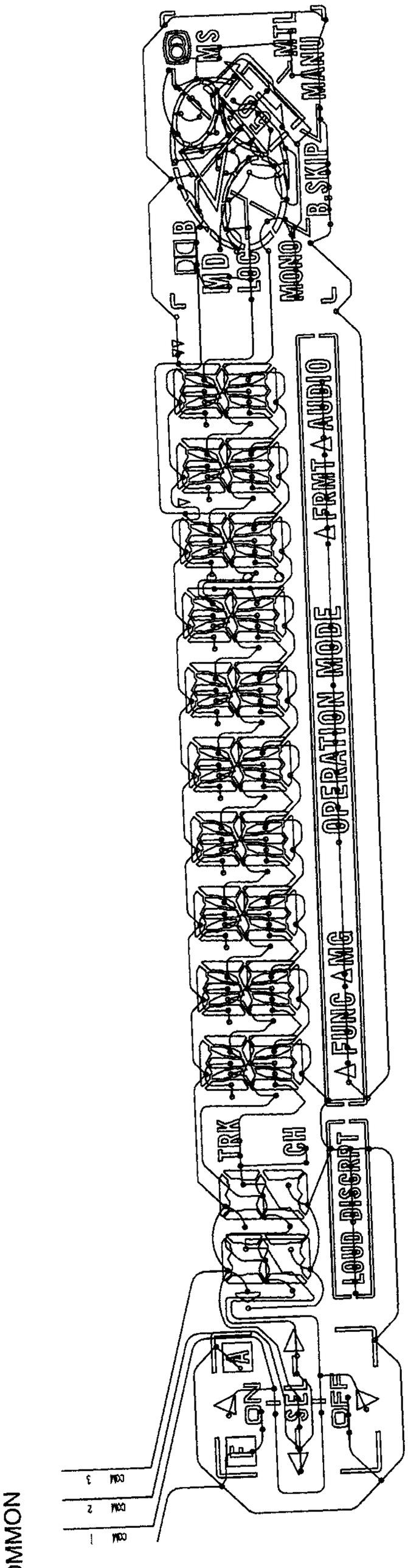


Fig. 25

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7.2 DISASSEMBLY

● Removing the Case(Not shown)

1. Remove the three screws.
2. Insert and turn a flat screwdriver to remove the case.

● Removing the Cassette Mechanism Module (Not shown)

1. Remove the four screws.
2. Disconnect the connector.
3. Remove the Cassette Mechanism Module.

● Removing the Detach Grille Assy(Fig.26)

1. Remove the two screws A, and disconnect the two connectors.
2. Disengage the stoppers at four locations indicated by arrows.
3. Remove the Detach Grille Assy.

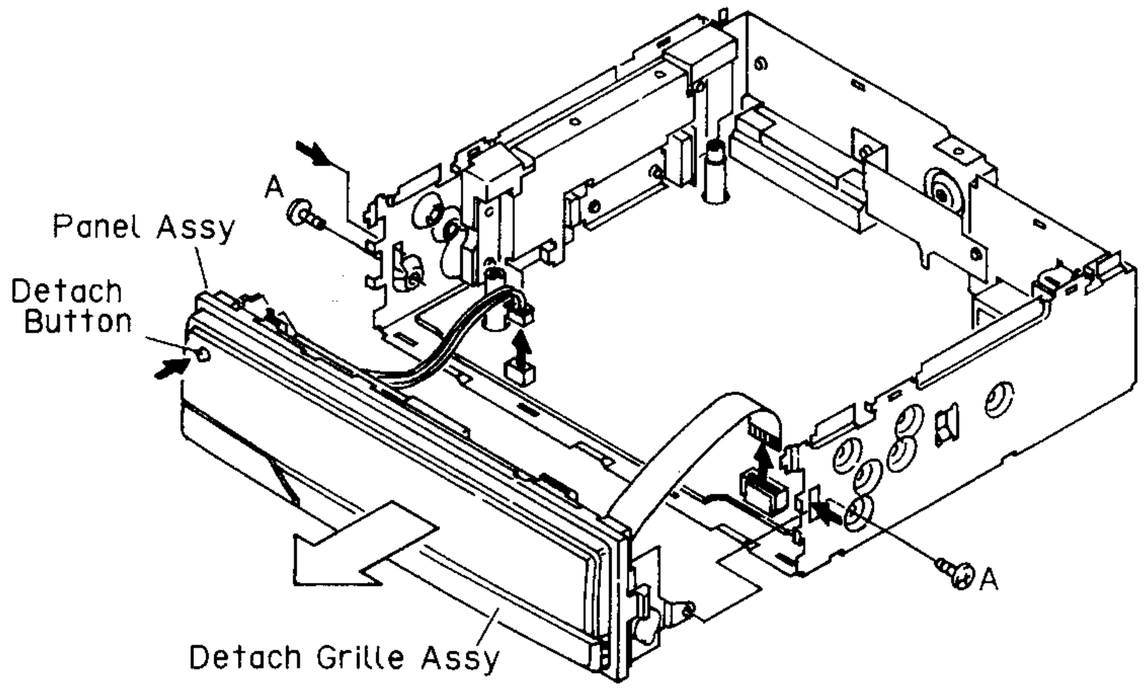

Fig. 26

● Removing the Tuner Amp Unit(Fig.27)

1. Remove the two screws B, and three screws C.
2. Unbend the tabs at three locations indicated by arrows until straight.
3. Raise up on Tuner Amp Unit.

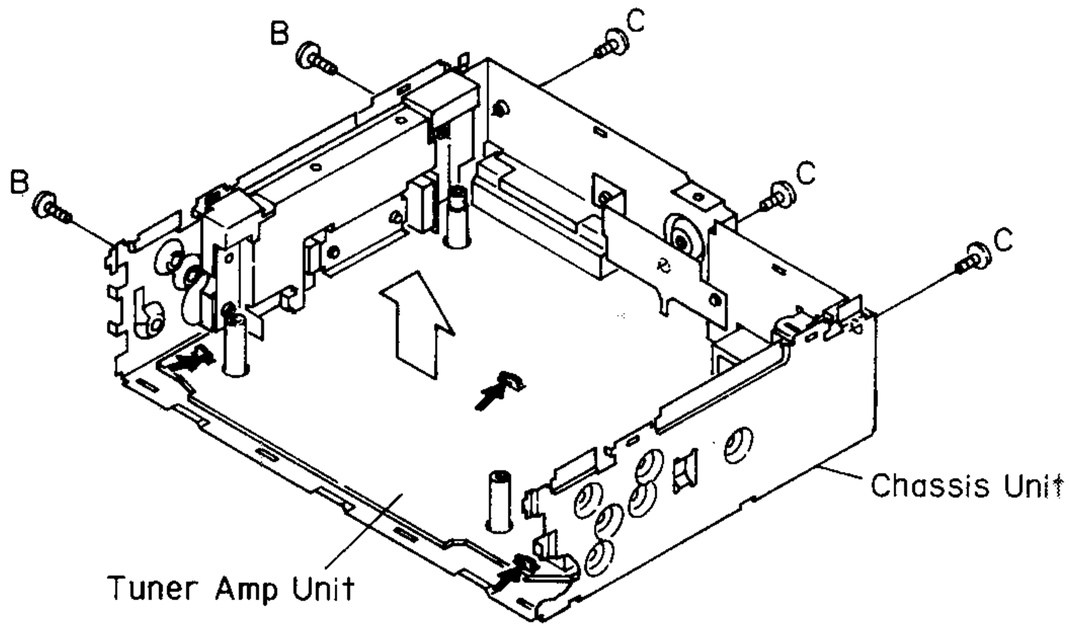

Fig. 27

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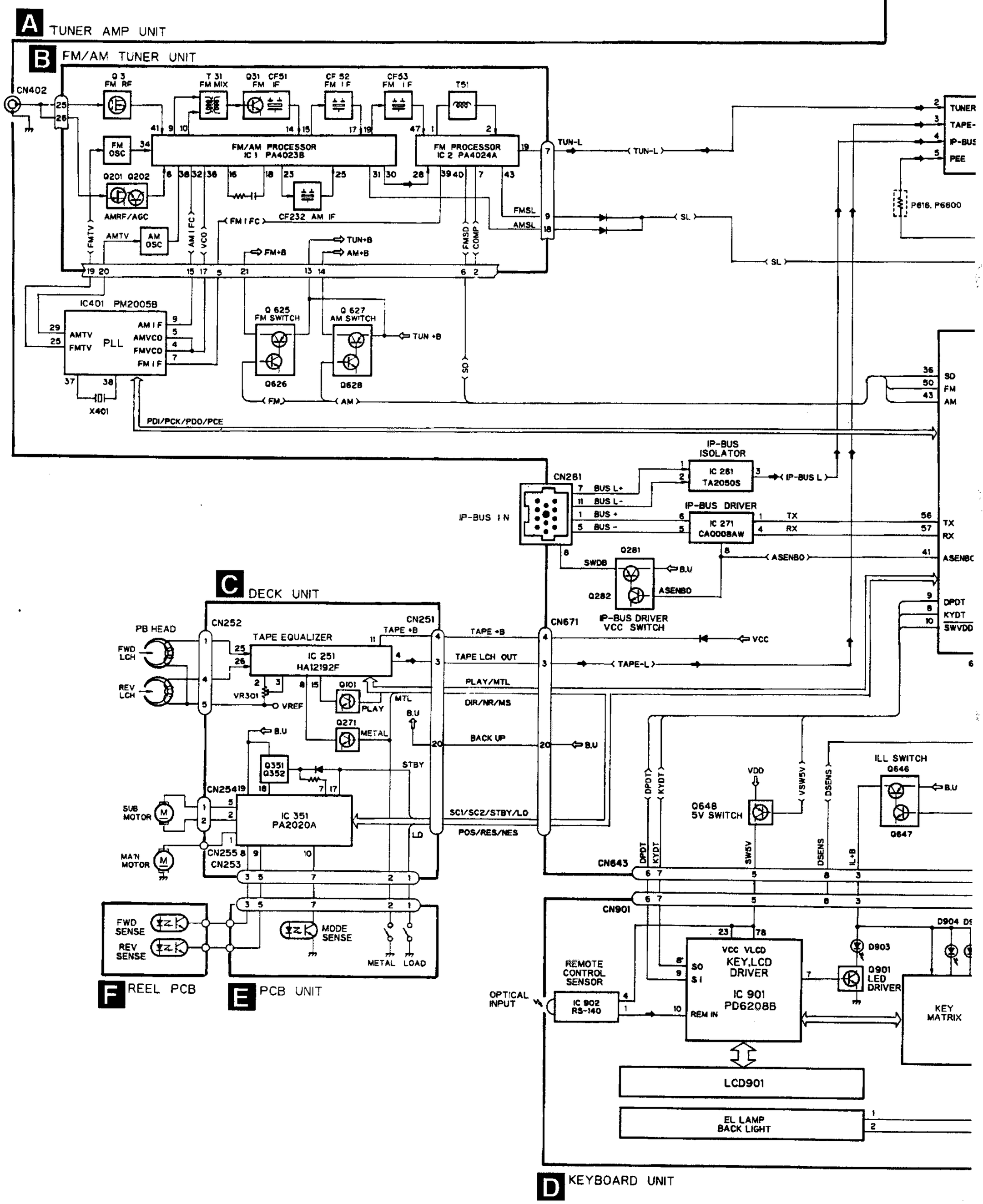
7.3 BLOCK DIAGRAM



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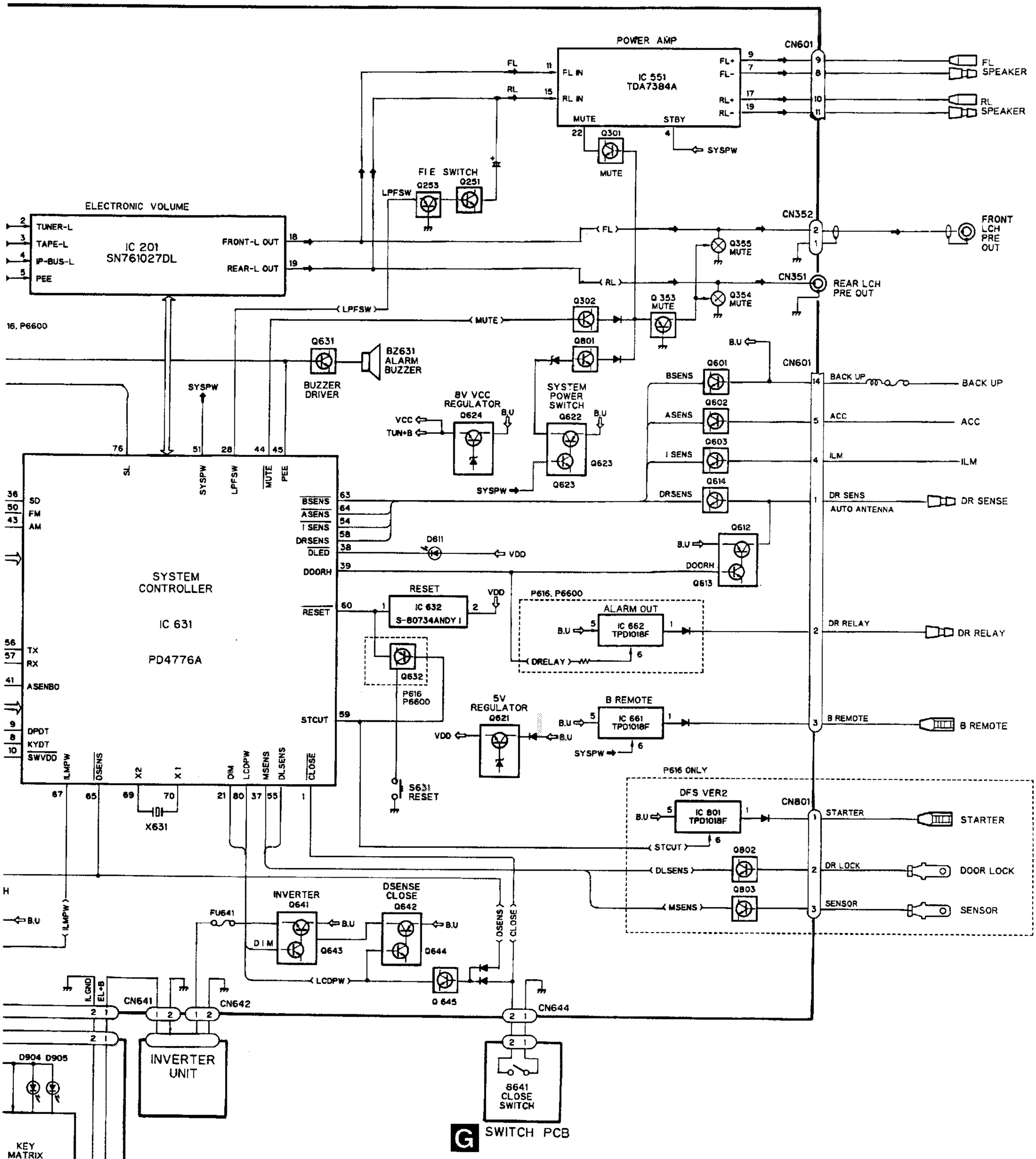
POWER AMP
IC 551
TDA7384A
FL IN
RL IN
FL+
FL-
RL+
RL-
MUTE
STBY
CN601
FL SPEAKER
RL SPEAKER
Q301
MUTE
SYSPW
FIE SWITCH
Q253
Q251
LPFSW
ELECTRONIC VOLUME
IC 201
SN761027DL
TUNER-L
TAPE-L
IP-BUS-L
PEE
FRONT-L OUT
REAR-L OUT
CN352
FRONT LCH PRE OUT
Q355 MUTE
CN351
REAR LCH PRE OUT
Q354 MUTE
Q353 MUTE
Q302
Q801
Q631
BZ631 ALARM BUZZER
BUZZER DRIVER
8V VCC REGULATOR
Q624
SYSTEM POWER SWITCH
Q622
Q623
VCC
TUN+B
B.U
Q601
Q602
Q603
Q614
BSENS
ASENS
I SENS
DRSENS
BACK UP
ACC
ILM
DR SENS
AUTO ANTENNA
DR SENSE
SYSTEM CONTROLLER
IC 631
PD4776A
Q612
Q613
D611
VDD
DOORH
RESET
IC 632
S-80734ANDY I
P616, P6600
ALARM OUT
IC 662
TPD1018F
DRELAY
DR RELAY
Q632
P616 P6600
5V REGULATOR
Q621
B REMOTE
IC 661
TPD1018F
S631 RESET
P616 ONLY
DFS VER2
IC 801
TPD1018F
STCUT
CN801
STARTER
Q802
DLSENS
DR LOCK
DOOR LOCK
Q803
MSENS
SENSOR
INVERTER Q641
DSENSE CLOSE Q642
FU641
DIM
Q643
Q644
Q 645
LCDPW
OSENS
CLOSE
ILGND
EL+B
CN641
CN642
CN644
INVERTER UNIT
D904 D905
KEY MATRIX
S641 CLOSE SWITCH
G SWITCH PCB
X631
SL
MUTE
PEE
ILMPW
DSENS
X2
X1
DIM
LCDPW
MSENS
DLSENS
CLOSE
SD
FM
AM
TX
RX
ASENBO
DPDT
KYDT
SWVDD

Fig. 28

8. OPERATIONS AND SPECIFICATIONS

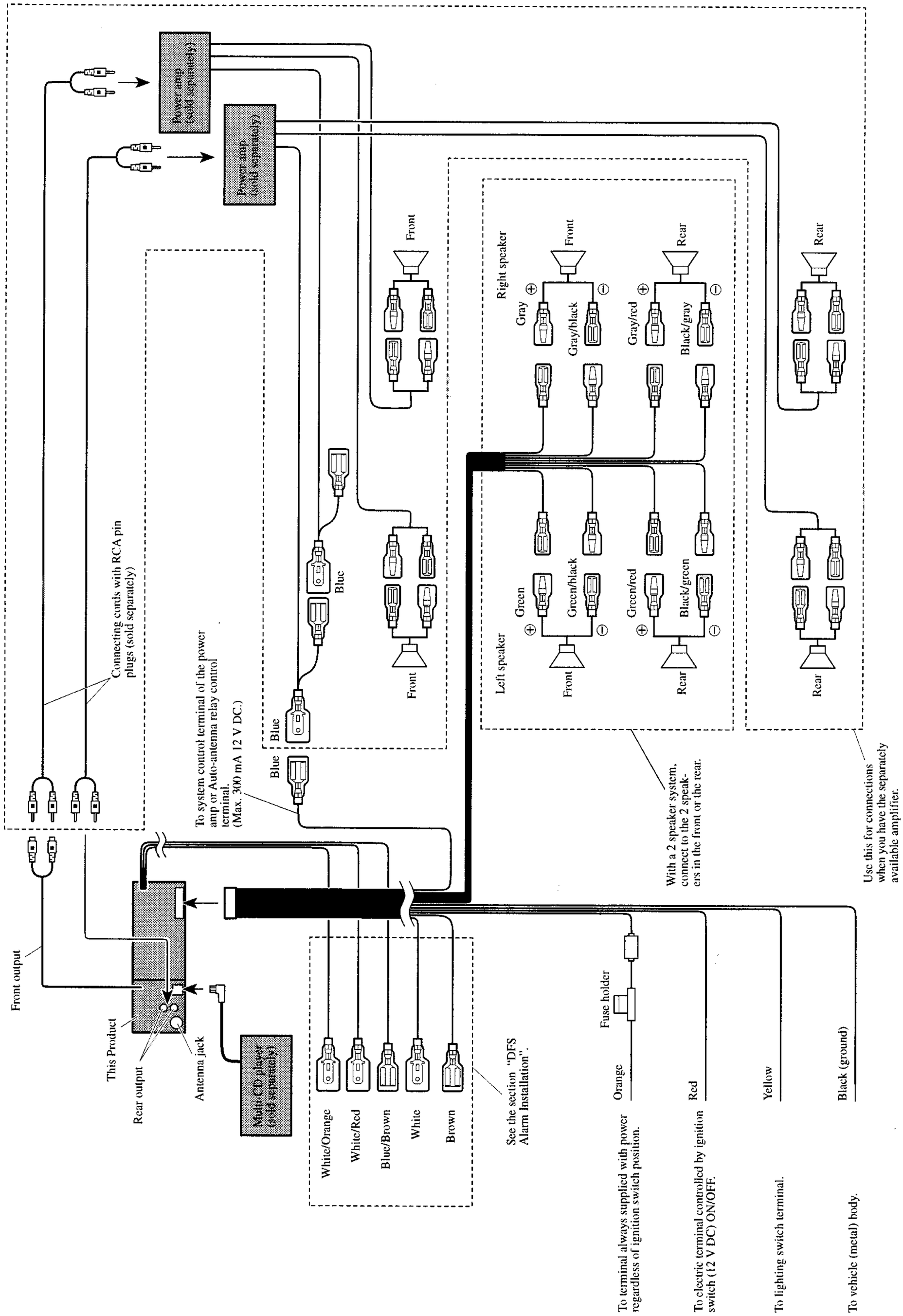

Fig. 29

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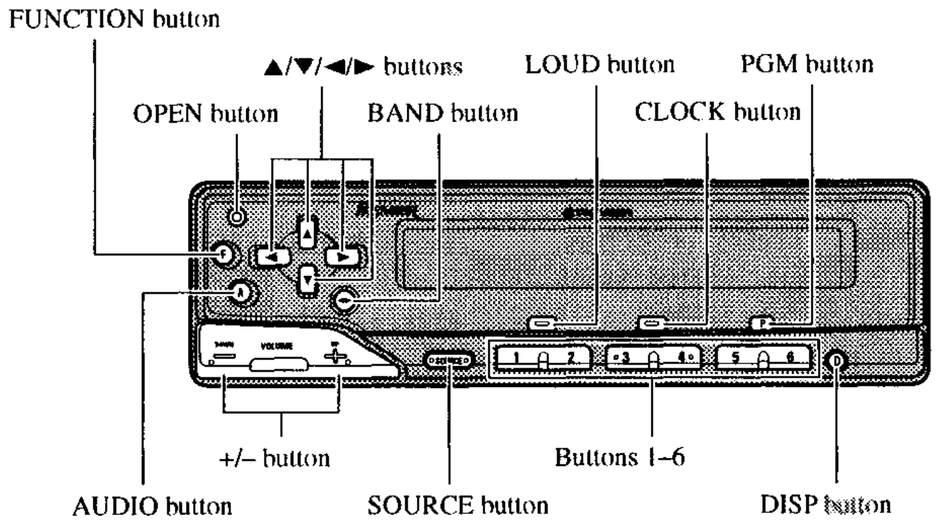
Key Finder

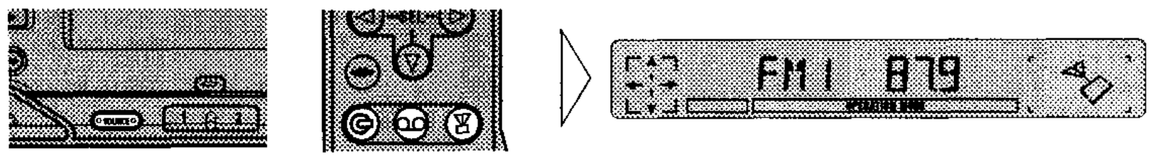
■ Head Unit



Basic Operation

Switching Power ON/OFF

- **Select the desired source (such as the tuner).**



■ Head Unit

Each press of the SOURCE button selects the desired source in the following order:
CD player (one disc only) → Tuner → Tape → Multi-CD player → AUX

To switch the sources OFF, hold down the SOURCE button for 1 second or more.

■ Remote Controller

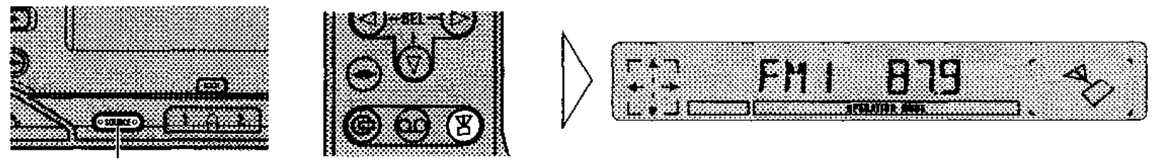
Each press of the button selects the desired source in the following order:
TUNER button : Tuner → OFF
TAPE button : Tape → OFF
CD button : CD player (one disc only) → Multi-CD player → OFF

Note:
- In the following cases, the sound source will not change:
  * No CD player is connected to this product.
  * No cassette tape is set in this product.
  * No Multi-CD player is connected to this product. (When "M-CD" display is OFF.)
  * No magazine is set in the Multi-CD player.
  * No disc is set in the CD player.
  * AUX (external input) is set to OFF.

Tuner Operation

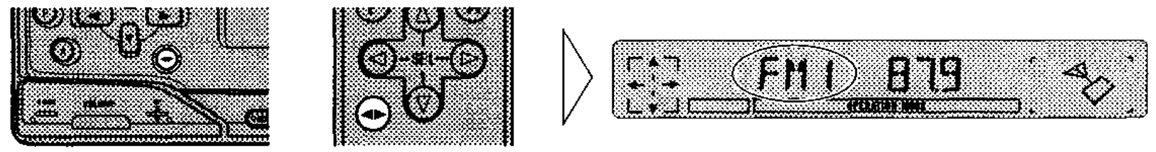
Basic Operation of Tuner

1. Select Tuner.



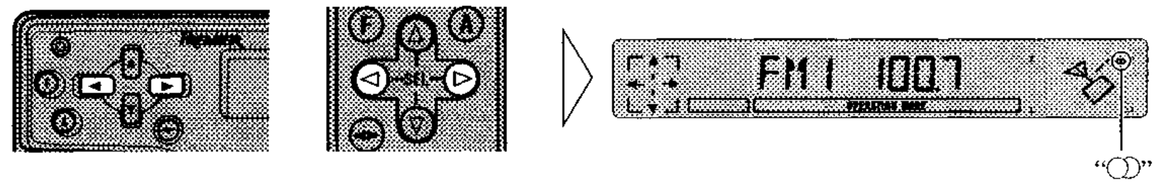
Each press
changes the Source ...

2. Select the desired band.



FM1 → FM2 → FM3 → AM

3. Tune the receiver to a higher or lower frequency.



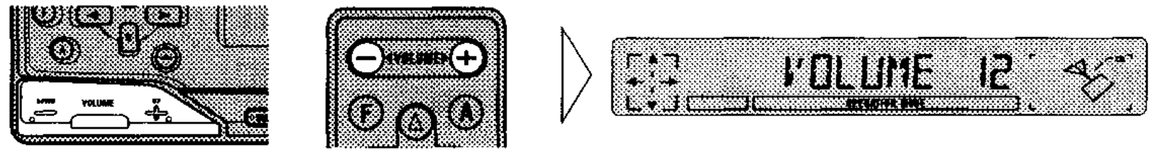
"◯"

This product's tuner lets you select the tuning by changing the length of the time you press the button.

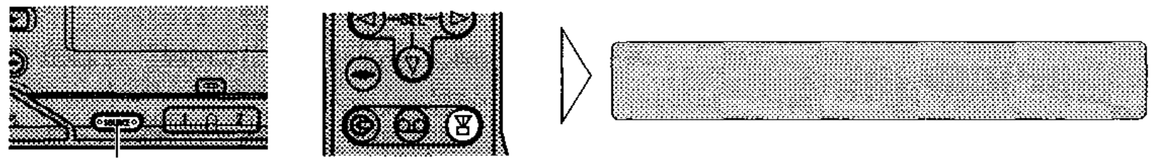
Manual Tuning (step by step)	0.3 seconds or less
Seek Tuning (automatically)	0.3 – 2 seconds
Manual Tuning (continuously)	2 seconds or more

Note:
- "◯" indicator lights when a stereo station is selected.
- To select a weak broadcasting station that cannot be tuned in with the Seek Tuning function, tune in with Manual Tuning.

4. Raise or lower the volume.



5. Turn the source OFF.



Hold for 1 second

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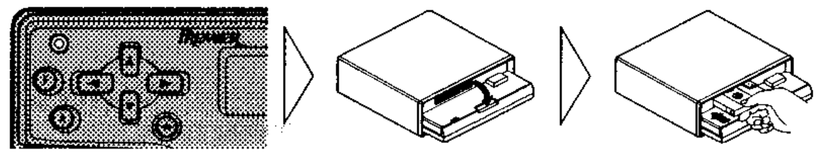
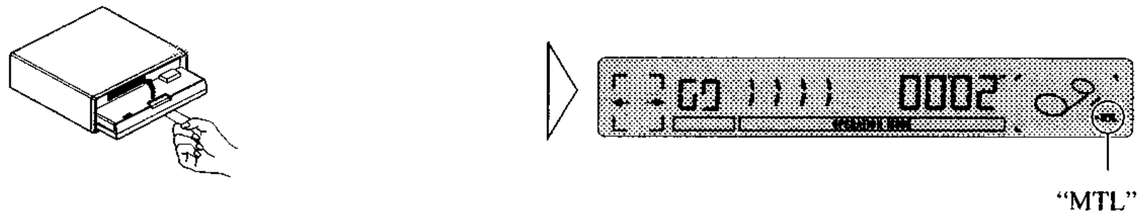
Basic Operation of Cassette Player

1. Open the front panel and insert the cassette tape.

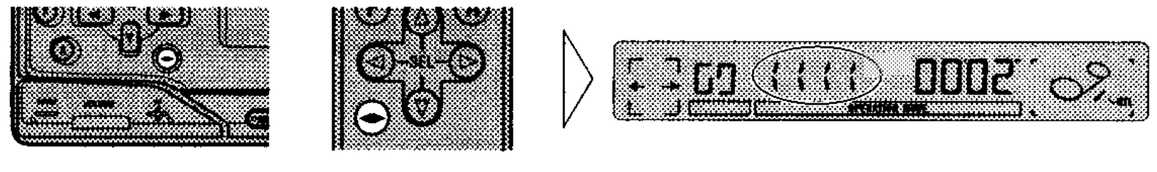


2. Close the front panel by swinging it gently upward.

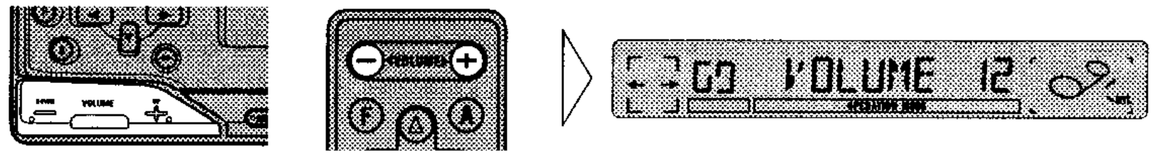


"MTL" appears automatically when a metal or chrome tape is inserted.
Nothing is displayed for a normal tape.

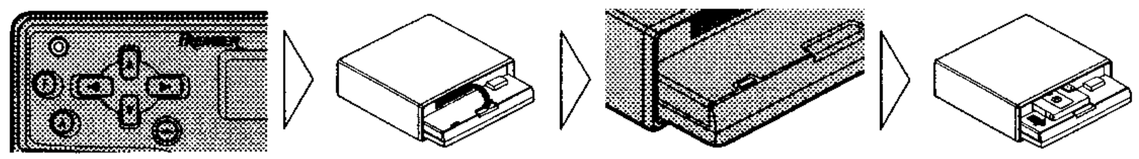
3. Switch tape playback from side A to side B, or vice versa.



4. Raise or lower the volume.



5. Open the front panel and remove the cassette tape.



Be sure to close the front panel after removing the cassette tape.

Note:
- The Tape function can only be turned ON/OFF with the cassette tape remaining in this product. (See page 53.)

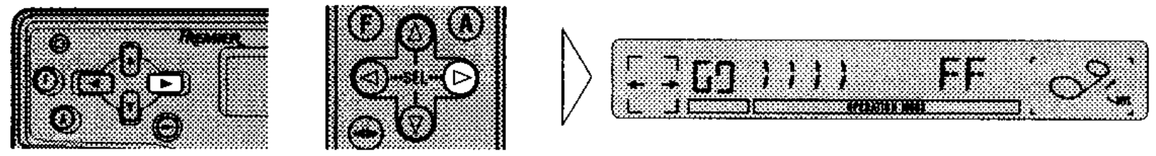
■ Fast Forward and Forward-Music Search

While "FF" is displayed, the system fast-forwards the cassette tape to the end of the current side.

While "F-MS" is displayed, the system winds the cassette tape forward to the beginning of the next song, then play begins from that point.

- **Select the desired mode in the following order:**

FF → F-MS → Normal playback



Note:
- Fast Forward (FF) and Forward-Music Search (F-MS) can be canceled by pressing the BAND button during FF or F-MS operation.

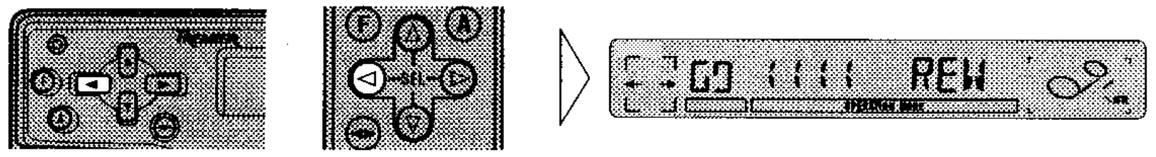
■ Rewind and Rewind-Music Search

While "REW" is displayed, the system rewinds the cassette tape to the beginning of the current side.

While "R-MS" is displayed, the system rewinds the cassette tape to the beginning of the current song, then play begins from that point.

- **Select the desired mode in the following order:**

REW → R-MS → Normal playback



Note:
- Rewind (REW) and Rewind-Music Search (R-MS) can be canceled by pressing the BAND button during the REW or R-MS operation.

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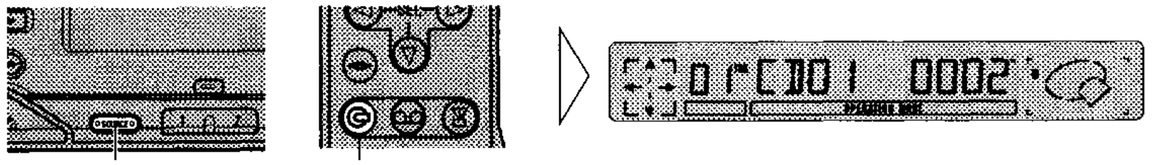
Using Multi-CD Players

This product can control one or more multi-CD players.

Basic Operation of Multi-CD Players

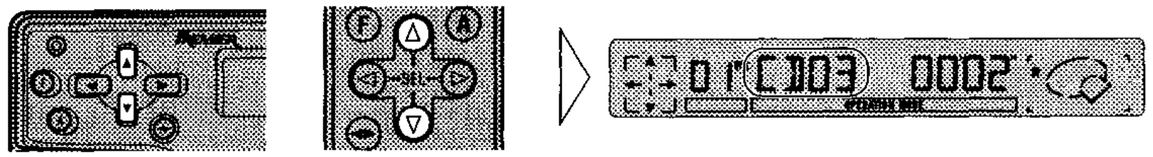
1. Select the multi-CD player source.



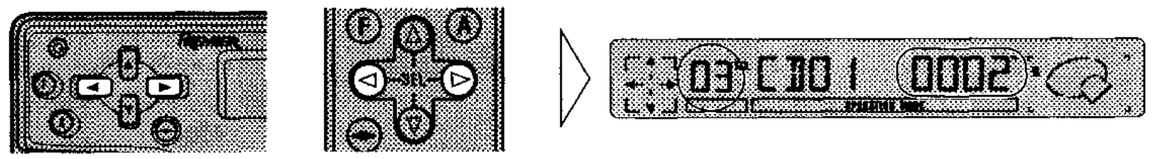
Each press changes the Source ... Each press changes the Source ...

Note:
- The multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the multi-CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the multi-CD player owner's manual.
- If there are no discs in the multi-CD player magazine, "NO DISC" is displayed.

2. Select the desired disc.



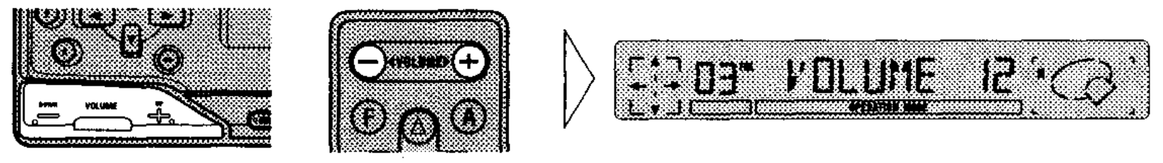
3. Select the desired track (or fast-forward/reverse, per the chart below).



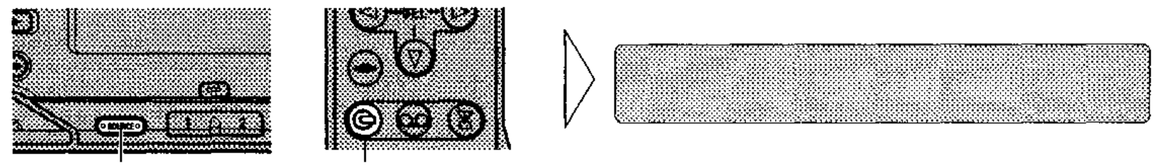
This product lets you select the track search function or fast-forward/reverse function by changing the length of the time you press the button.

Track search	0.5 seconds or less
Fast-forward/Reverse	Continue pressing

4. Raise or lower the volume.



5. Turn the source OFF.

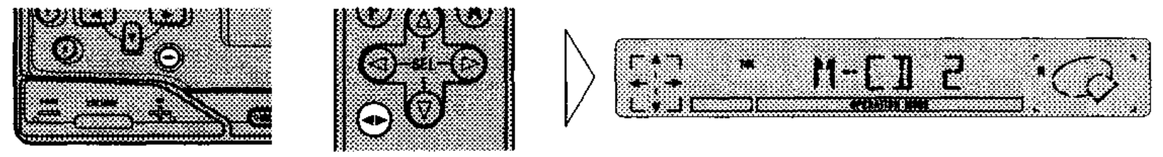


Hold for 1 second Each press changes the Source ...

Switching the Multi-CD Player

It is possible to connect up to three multi-CD players by means of a multiple installation adapter. When two or more multi-CD players are installed, their priorities must be specified. Follow the multi-CD player instructions carefully, and set the address switches properly.

- **Select the multi-CD player you want to use.**



M-CD 1 → M-CD 2 → M-CD 3

Using Multi-CD Players

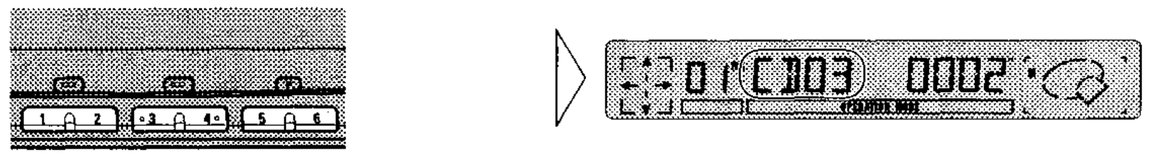
Disc Number Search

■ Disc Number Search (for 6-Disc, 12-Disc types)

You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:
- When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds or longer.

- **Select the desired disc. (eg. Press button 3.)**



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Specifications

General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 8.5 A
Dimensions
(DIN) (chassis) .... 178 (W) × 50 (H) × 150 (D) mm
[7 (W) × 2 (H) × 5-7/8 (D) in.]
(nose) ..... 188 (W) × 58 (H) × 19 (D) mm
[7-3/8 (W) × 2-1/4 (H) × 3/4 (D) in.]
(D) (chassis) .... 178 (W) × 50 (H) × 155 (D) mm
[7 (W) × 2 (H) × 6-1/8 (D) in.]
(nose) ..... 170 (W) × 48 (H) × 14 (D) mm
[6-3/4 (W) × 1-7/8 (H) × 1/2 (D) in.]
Weight ..... 1.4 kg (3.1 lbs)

Amplifier

Continnous power output is 17 W per channel min. into 4 ohms. both channels driven 50 to 15,000 Hz with no more than 5% THD.
Maximum power output ..... 35 W × 4
Load impedance ..... 4 Ω (4 – 8 Ω allowable)
Preout output level/output impedance ..... 500 mV/1 kΩ
Tone controls
(Bass) (P616/UC, P6600/UC) ..... ±12 dB (100 Hz)
(Bass) (P6650/ES) ..... +8 – –16 dB (100 Hz)
(Treble) ..... ±12 dB (10 kHz)
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz)
(volume: –30 dB)

Cassette player

Tape ..... Compact cassette tape (C-30 – C-90)
Tape speed .... 4.76 cm/sec. (+0.14 cm/sec. –0.05 cm/sec.)
Fast forward/rewinding time .. Approx. 100 sec. for C-60
Wow & flutter ..... 0.09% (WRMS)
Frequency response ..... Metal: 30 – 22,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio
(P616/UC, P6600/UC)
.....Metal:Dolby B NR IN: 67 dB (IHF-A network)
Dolby NR OUT: 61 dB (IHF-A network)
(P6650/ES)
.....Metal: Dolby B NR IN: 67 dB (IEC-A network)
Dolby NR OUT: 61 dB (IEC-A network)

FM tuner

Frequency range
(P616/UC, P6600/UC) .....87.9 – 107.9 MHz
(P6650/ES) .....87.5 – 108 MHz
Usable sensitivity
..... 11 dBf (1.0 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity .... 16 dBf (1.7 µV/75 Ω, mono)
Signal-to-noise ratio
(P616/UC, P6600/UC) ..... 70 dB (IHF-A network)
(P6650/ES) .....70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)
Selectivity (P616/UC, P6600/UC) ..... 70 dB (2ACA)
Three-signal intermodulation
(desire signal level)(P616/UC, P6600/UC)
.....50 dBf (two undesire
signal level: 110 dBf)

AM tuner

Frequency range
(P616/UC, P6600/UC) ..... 530 – 1,710 kHz
(P6650/ES) .....531 – 1.602kHz (9kHz)
530 – 1.710kHz (10kHz)
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20 dB)
Selectivity
(P616/UC, P6600/UC) ..... 50 dB
(P6650/ES) ..... 50 dB (±9 kHz)
50 dB (±10 kHz)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.